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EDITORIAL NOTES.

The Board of Medical Examiners meets in San Francisco, August, 25th, and the **DESTROYED JOURNAL** is advised that action **CERTIFICATES** will be taken in the matter of the restoration of certificates to practice medicine in this State is issued prior to April 18th, 1906, and destroyed by the San Francisco fire of that date. We understand that the Secretary, Dr. Chas. L. Tisdale, 1879 Sutter street, San Francisco, will be authorized to issue duplicate certificates upon proper identification and the filing of an affidavit setting forth the manner of the loss of the certificate for which a duplicate is prayed. This action, we understand, was authorized by the special session of the legislature which met in June. All inquiries on this subject should be addressed to the Secretary at the above address, but it should be borne in mind that a very large volume of work must be done by the board, and patience should be exercised by those who apply for new certificates.

It will well repay every physician in the country to study carefully the attitude of the various fire insurance companies toward the losers in the San Francisco disaster of last April. **FIRE RISKS** It appears from a careful investigation of the matter that very few members of our profession, in San Francisco, were insured for anything like the full value of their office property, and very many carried no insurance at all except upon their personal effects and homes. Probably \$1,000 would be in excess of the average amount

of insurance held by physicians on their office fixtures. How far would that sum go in rehabilitating your office, if everything in it was destroyed? Thus, even supposing that you were paid in full the amount of your insurance, your loss would seem to be not inconsiderable. We are all careless about some things. Thousands of insured in San Francisco did not know even the name of the company in which they held insurance, and to almost all the name itself was meaningless, so far as giving an indication of the stability or rectitude of the company, until the day of reckoning came. For this reason, we think, it will pay you well to study carefully the list of companies which we reprint elsewhere in this issue, and to see to it that you have insurance in some of the companies classed in the "dollar for dollar" list. Why should you pay premiums on full value when you may feel confident that, in the event of disaster, you will receive but fifty or seventy-five per cent. of the amount you are entitled to? Why not take the trouble to see that your insurance is placed with a company which has shown, by its treatment of your brothers in San Francisco, that it deals honestly with its policy holders? Just look up your insurance policy and then see if the name of your company is in the "dollar for dollar" list.

To one who loves his San Francisco, many things, just now, are rather trying. It hurts to see strictures on our city published here and there about **UNGRATEFUL SAN FRANCISCO** the country, and the hurt is not lessened when they happen to be true. In a recent number of the *St. Louis Medical Review* appeared the following comment, which, in the main, is sadly true:

"San Francisco appears to be making but a poor return, if we are rightly informed, for the practical sympathy that flowed towards it from all sides in the hour of its calamity. Immediately on the shock of the disaster, the members of the medical profession promptly threw their skill and labor into the common treasury of work for the public good. That was only what was to be expected of every man, each after his kind. But later, when the instant peril was over and the onward march was planning for the resuscitation of the community, the laborer and the scavenger and the clerk and all other toilers in the essential needs of life are being reimbursed for their labors, the members of the medical profession alone—most hard hit perhaps of any class—are refused any share in the general relief if our information is correct."

A specific example of gross injustice may be noted in the case of one physician who, like so many of his confreres, gave up his time to relief work immediately upon the coming of the disaster of April. He was hurrying upon some errand of mercy in one of the automobiles commanded by the Army, when the axle bent. A nearby blacksmith was called upon, and in an hour or two he

succeeded, with the aid of three helpers, in setting right the trouble. He refused to accept an order from the Army in payment, and demanded cash. The physician in question paid the sum demanded, \$5.00, a modest charge—and is still out of pocket that \$5.00. Not only did this doctor work days and weeks for nothing, but he had the pleasure of paying out some of his hard earned and not too plentiful money, for doing so. And very numerous instances of a like sort could be mentioned. Political grafters, helpers, scavengers, watchmen, etc., can be paid; a private institution can borrow \$20,000, but the physician cannot even get back what he has paid out of his own pocket!

In bygone years, when we were all sleeping the hypnotic sleep induced by the nostrum's detail man, and the truth was not known to us, there were a number of medical journals regarded with considerable esteem as being representative of the best in the medical profession. Little attention was paid to their advertising pages, for participation in graft through advertising had not been generally recognized. Some, if not most, of these journals were owned by gentlemen of acutely commercial minds, and they derived large revenues from their publications—or rather from the advertising pages of their publications. That the *Medical Record* once held a high place in the confidence of medical men, can not be doubted; that it has earned a great deal of money for its owner, is most probable. But an awakening came. The American Medical Association was roused and it began to look into the "Great American Fraud" as perpetrated upon the medical profession. It began to tell the real inwardness of some of the nostrums foisted upon medical men and advertised in medical journals previously regarded as respectable, and to call attention to the fact that journals which advertise such things and derive a good part of their revenue from them, are really participating in graft. This was annoying. The commercially minded owner has his view point fixed upon the dollars, not ethics, and he dislikes the idea of cutting off any of these readily paid, but possibly dirty dollars. The statements about fake medicines and rank nostrums published by the *Journal A. M. A.*, being true, could not well be denied. Nor could the logic of its fight for right (with the origination of which we may have had some small part) be upset; argument was useless. So what could the journal, desirous of holding on to all its revenues, nostrum-tainted or otherwise, do? Obviously, human nature being what it is, the proper thing to do was to get mad and attack the organization responsible for telling these objectionable truths and try to stir up trouble for it. This was only to be expected of a large number of journals, but truth to tell, it came as a surprise to see the *Medical Record* joining the ranks of the disgruntled "published-for-profit" journals and openly attacking the American Medical Association. There never was a time when the Association was more

harmonious, when dissensions were fewer, when the rank and file of the membership was more solidly appreciative of the good work being done for the whole profession by its Association. Just bear in mind the real reason for the distorted attacks upon the Association, and when you read of dissensions and threatened rupture, just close one eye; they are all—well, let us say—fiction.

[N. B. In one number of the *Record* containing an editorial "roast" of the Association, appeared the following advertisements: Antikamnia, Gray's tonic, Scott's emulsion, antiphlogistine, resinol, ergoapiol (Smith), sal hepatica, Dios Chemical Co., seng, cactina, chionia, anasarcin (formerly advertised as a cure for dropsy) and our old friend "fig syrup"—which is innocent of the festive fig. But the editor of the *Record* is officially ignorant of the fact that it publishes advertising pages, so we will have to open the other eye, and excuse him.]

When will we fully grasp the fact that dentistry is really but a specialty in medicine; that it is just as much an integral part of medical science as orthopedics, and that it should carry with its special practice a thorough knowledge of medicine? All this is forcibly called to mind by a paper read before the Section on Stomatology, at the last meeting of the American Medical Association, by Dr. Eugene S. Talbot. "Rigg's disease," or "pyorrhea alveolaris," or as it has now come to be called, interstitial gingivitis, has made very many of us uncomfortable; we know but too well what are its local manifestations. Yet only within the past ten years has it occurred to any one that this very general and very painful affliction had a systemic rather than a purely local origin. Talbot has done a great deal of careful work on this subject for ten or twelve years past, and his contention that the irritation of the tissues surrounding the roots of the teeth is merely an expression of a deranged metabolism and an autointoxication, can hardly be upset. For some time we heard much of the "uric acid diathesis," etc., and it was well known that many cases of interstitial gingivitis could be relieved by administration of the salicylates; yet little profit was derived from this knowledge. Such men as Talbot and Carlton, persistently showing to their fellows in dentistry the close relationship between that specialty and medicine, will do much to educate us all to a proper realization of the fact that dentistry should be taught as a branch of medicine and not as a separate art. All nutritive processes begin in the mouth, and to consider any process of nutrition or metabolism without taking the mouth into consideration, would be absurd. It would seem to be almost equally absurd to consider the mouth and its contained teeth as being entirely separate from the rest of the system, and yet that is exactly what has been done and is being done and will be done, so long as the teaching of dentistry remains a separate industry.

On another page we take pleasure in presenting to the readers of THE JOURNAL a very interesting letter from a member of the staff of the German Hospital, who presented some remarks which appeared in a recent issue. It will be seen from this letter that, while the general contention that the German Benevolent Society is an open contract practice institution is not disputed, it would appear that our previous informant had somewhat distorted the actual state of the domestic affairs of this institution. That the German General Benevolent Society has, in past years, done an enormous amount of most praiseworthy charitable work, cannot be gainsaid. That in more recent years many abuses have crept into that institution and that it has very justly been criticized for them, is, we think, equally patent. We are very glad to learn that "hospital patients" are now to be classed and treated as the private patients of the proper member of the attending staff, paying him for his professional services just as any other patient would; this is a long step in the right direction. There remains the reproach that any person, rich or poor, German or not, may become a "subscribing" member of the Society, and as such demand medical or surgical attention for the membership fee of \$1.00 per month. This is not right and cannot be defended in practice. It is therefore with much pleasure that we learn from the communication of our esteemed colleague of the German Hospital, that the energies of the staff are being devoted to an attempt to curb this abuse. Let members of the Society who are able to do so, pay their physician or surgeon just as would any one else. To contemplate the spectacle of a rich man receiving considerable professional attention for the grotesque sum of \$1.00 per month, is not elevating nor inspiring, and we wish the staff every success in their efforts to put a stop to it. Probably, as our correspondent suggests, there will always be contract practice in some form; but let us, at least, strive without end to keep it within reasonable bounds and let it be but one form of that charity which physicians are so lavish in giving.

San Francisco is liable to secure still more fame, or at least attention, through two of **THE VIAVI** her "prominent citizens." The most **REMEDIES** excellent agitation of the nostrum mess, or "patent medicine" business—the "Great American Fraud"—by *Collier's Weekly* is enlightening the public in many ways, and more and more pronounced is the demand for truthful information about these nasty frauds. "Viavi" has come in for mention, and doubtless when the new pure food law goes into effect, it will receive still more interested attention from the administrators of that valuable measure. It may not be generally known to our readers that the "Viavi" business is owned by two "distinguished" citizens of San Francisco—Herbert Law and his brother, "Dr." Hartland Law. For those who are interested in the investi-

gation of frauds we would suggest a few lines of inquiry. Do any of the "viavi" remedies contain morphine? Is it true, as has been rumored, that a considerable portion of the "viavi" instruction deals with the science, art and practice of preventing conception—or eliminating the early product? Is it necessary that there shall be any metal connected with the brick in the transaction of selling a "gold brick"? It may also be interesting to our members, especially our San Francisco members, to know that the Fairmont Hotel has become the office of the "viavi" concern. We wonder will this convenient location be retained after the hotel is open for guests. Certainly, it would be a most excellent advertisement—of our "prominent citizens" and their honest business—and it would also be so convenient for the poor, suffering women who desire instruction in the science, art and practice, etc.

The JOURNAL is advised that a department has been opened at the City and **TUBERCULOSIS** County Hospital, San Francisco, for the care of hopeful **DEPARTMENT** cases of pulmonary tuberculosis, and that it is ready to receive favorable male patients. The department of public health, we are informed, has for some time had in contemplation the creation of this tuberculosis section. The news that their plans have finally been perfected and that the work of rescue has actually been undertaken, is certainly encouraging, for it marks the first definite effort to fight tuberculosis which has ever been attempted in San Francisco. This is particularly significant when we realize that this city possesses the rather unenviable reputation of having probably the largest mortality from tuberculosis of any large city in the country. During 1905 the mortality reached 22.35 per 10,000 inhabitants, estimating the population to have been 450,000; this mortality resulted from pulmonary and laryngeal tuberculosis alone. We understand that the department of tuberculosis has been placed under the entire charge of the San Francisco member of the tuberculosis committee of the State Society, and that he will have absolute authority in the selection of suitable patients, and in the matter of personal supervision over them. The tuberculosis department is situated on the southern extremity of the City and County Hospital grounds and consists of a number of tent cottages with accommodations for twenty patients; a separate cottage is provided for administration purposes, also separate wooden buildings for kitchen, bathrooms, lavatories, etc. It is not the intention to make this department a place where helpless or very far advanced cases of tuberculosis shall be placed. It is indeed unfortunate that no suitable place exists for the accommodation of these patients, where they might at least be made comfortable and still not be a menace to others, but the importance of keeping this class of patients, afflicted with tuberculosis to a hopeless degree, from those who are still well, or but slightly infected, can not be overestimated. We therefore consider it very wise that

the ruling has been made at the very beginning of the existence of this tuberculosis department that no patient shall be admitted except he be in a hopeful stage of the disease. Only by following a policy of this sort can the best results be accomplished in the way of improvement or cure.

Just now we refer to the holders of life insurance policies not fire insurance. We wish **POLICY** to call your attention particularly to **HOLDERS** a letter from a physician in this State to the president of one of the large insurance companies—the Mutual—which appears on another page. Most physicians carry life insurance, and particularly those who are or have been examiners for life insurance companies. Certainly no class of injured can form a better idea of what is going to happen in the future, with the big companies paying but \$3.00 for a medical examination and having any old person make it, than can physicians. No one of us needs to be told that it is an exceedingly dangerous state of affairs. Has any company the right to jeopardize the value of policies now held, by reckless and careless examination of future risks at the hands of poorly paid and often incompetent examiners? This is a phase of the question which should receive the careful attention of insurance commissioners the country over, and especially in states where the great majority of the better and competent physicians are refusing to make examinations at cut rates. Instances are beginning to come to our attention where grossly incompetent persons have been allowed to examine risks, because the local members of the county medical society would not sacrifice their self-respect by doing cut rate work. When the return of death comes in, what effect is this sort of carelessness going to have upon the now ample assets of the company? There is hardly a single well qualified physician in the country who can afford to give the time necessary for making a thorough examination and filling out the required blank, for \$3.00. Indeed, in many communities the best men will have nothing to do with insurance examinations at \$5.00, as they are too busy to afford to give their time at that figure; what then must be the condition of things when the remuneration is cut to \$3.00?

Some consulting physicians and surgeons of San Francisco have brought to the attention of the JOURNAL what may seem a trifling thing, yet one which is a great annoyance. **ANNOYING CARELESSNESS**

Patients will be referred to them from colleagues in the country, without a line to the consultant as to what is desired. Is the consultant to examine the patient and report to the family physician? Or is he to tell the patient what he finds? Is he to care for the patient himself, operating if need be, or is he to send the patient back home to be cared for by the referring physician? And after he has carefully examined the patient, possibly making some x-ray plates, prints of

which, together with a long letter setting forth the condition which he has diagnosed, he has sent to the physician so kindly referring to him the patient—he receives no acknowledgement whatever. It has happened, we are told, that not even the receipt of such a letter has been acknowledged, and the further history of the patient, often a matter of some interest to the consultant, remains a mystery. Now, this is not right. Any person who goes to the trouble of writing a letter to another on some subject of common interest, certainly has earned the consideration of an acknowledgement of his letter at least, if not indeed, a reply in kind. To fail to acknowledge the receipt of an important letter is not only unbusinesslike, it is absolutely discourteous. To the writer of the letter, it is a great annoyance to have his communication go unanswered, for he is left in doubt as to its receipt. Any physician who refers a patient to a consultant without a word as to what is wanted, can not complain if the consultant uses his judgment, operates upon the patient, if need be, and in general handles the patient as though he were his own.

THE OCCURENCE OF OCCULT HEMORRHAGES IN TYPHOID FEVER.

Since the publication in 1904, of Joachim's observations in occult hemorrhages in typhoid fever several investigators, notably Tedeschi, Petracchi and Steele, have contributed to our knowledge of the subject. More recently Tileston⁽¹⁾ has restudied the question and in an interesting article reports the results of examinations of the stools from 68 cases. The guaiac and alon tests for blood pigment were uniformly employed. Positive results were obtained in 25% of the cases. The reports of different investigators are by no means uniform. Thus, Tedeschi observes it in only three out of twenty-four cases. Petracchi, on the other hand, obtained positive results in eight out of eighteen cases (44%), while Steele found traces of blood in about 16% of his series. Zuccola is the only observer whose results were positive in every case. These conflicting statements are due probably to several causes as pointed out by Tileston. In the first place, there may be variations in the severity of the epidemic; secondly, differences in technic and the frequency of the examinations of the stools are also important factors. Of course, the personal equation is always important when a color reaction is in question. Subsequent studies will probably show results quite similar to those to Tileston.

The occult hemorrhages appear in the second week of the disease, persist during the following week and reach their maximum in the fourth week. The fifth week, usually afebrile, gives the lowest figures. In many cases, on the day of positive reaction the temperature was considerably elevated.

The relation to gross hemorrhages is interesting but disappointing. In Tileston's series hemorrhages occurred in seven cases (10%); in six of these, although the stools were examined in all within the

preceding twenty-four hours, tests were negative. In one case only were positive results obtained before the bleeding became manifest. Furthermore, the occurrence of occult hemorrhage seems to be of little prognostic significance.

GASTROENTERIC AUTOINTOXICATION; ITS RECOGNITION AND SIGNIFICANCE AND ITS RELATION TO ARTERIAL HYPERTENSION.*

By W. A. BRIGGS, M. D., Sacramento.

(Continued from April Journal, p. 133.)

(Note.—The first portion of this paper appeared in the April issue of the Journal and the remainder was to have appeared in the May issue. It is needless to state that the type was destroyed. The author has been good enough to furnish us with a copy of the balance of his article, and we take pleasure in presenting it to our readers.—Ed.)

Difference in method, in size of the artery, thickness and resistance of the coats, and in the thickness of overlying tissues, form not inconsiderable and more or less inevitable elements of error. In the vast majority of cases, however, the findings of the educated finger, interpreted by the educated judgment, are of real value either in and of themselves, or as indicating the necessity for instrumental measurement. Instruments for measuring blood-pressure are of numerous forms and difficult classification. Janeway divides them somewhat as follows:

(1) Those which apply pressure to the artery by means of a solid block, and register a pulse tracing. Marey's sphygmograph is the best known of these instruments. They are difficult of application; their findings depend largely on the personal equation, and therefore they do not lend themselves to accurate scientific comparison. Consequently, they are of purely historic interest.

(2) Those which apply pressure directly to the artery through a fluid or gaseous medium, and indicate blood-pressure by either spring or mercurial manometer. Of these the sphygmomanometer of von Basch was the first to meet with successful clinical use. The findings of these instruments depend largely on individual factors both objective and subjective quite independent of the actual blood-pressure, and are therefore variable and unsatisfactory. In consequence, these instruments have been all but superseded by others of the class next to be mentioned.

(3) Those which make pressure on the artery by circular cushion of compressed air, and for their criteria depend on the distal arterial pulse. The first of these was the Riva-Rocci, followed by numerous modifications, which, on the whole, have greatly increased its accuracy and convenience. Of this form of sphygmomanometer and its modifications I have used the Riva-Rocci, the Stanton and the portable Janeway. Both the Stanton and the Janeway may be used to determine diastolic as well as systolic pressures. They are both excellent instruments, the portable Janeway, perhaps, being

somewhat more convenient for the combined work of house and office.

(4) Those which make pressure on the artery by circular cushion of compressed air, and depend for their criterion on the distal capillary circulation. Of these, the Gaertner Tonometer is the best known. Martin has improved this instrument by substituting a finger-band of the Riva-Rocci type for the Gaertner ring. Instruments of this type measure systolic pressure only.

(5) Those which make pressure on the artery by circular cushion of compressed air, depend for their criterion on the return of the distal pulse, indicate the arterial tension by a mercurial manometer, and graphically record its variations. Of these instruments, Erlanger's is one of the best. While admirable for scientific work, it is too complicated and cumbersome for routine work in general practice.

In an early period, we may cure at least a majority of these cases; later, we may generally arrest or greatly delay their progress; but in their terminal stage, we are little more than sympathetic spectators of a tragedy long since inevitable. The early recognition, and the prompt and intelligent treatment of gastroenteric autointoxication and the degenerative processes which follow in its course, are therefore among the most important duties of our profession. Our text-books in dealing with the therapeutic aspect of these questions are most perfunctory, and our periodical literature is fragmentary and inadequate.

In my opinion, iodides and nitrites are not by any means our only resource, or even our main reliance, in any but the terminal stage of these troubles—when their effect is purely palliative. I have therefore attempted to envisage this subject from another than its somewhat stereotyped aspect, in order to suggest a more rational and effective prophylaxis and therapy.

To Federn, I believe, is due the signal credit of being a pioneer long in advance of the main body of his confreres in the recognition of the essential nature of these troubles, of their pathogenesis, and their effective treatment. But his voice, like that of many a pioneer, as he himself laments, has been a crying in the wilderness. Federn did not recognize, perhaps, nor in this paper do I presume to present, the complete pathogenetic chain; but unless I am greatly in error, his has been the enviable fortune to discover important diagnostic criteria, and to suggest measures indispensable to successful treatment.

Convinced as I am, that arteriosclerosis and arterial hypertension in a very large, if not the greater number of cases, owe their origin and progress to perversions of the digestive functions; in other words, are but a secondary stage of gastroenteric autointoxication, I not unnaturally consider these conditions together, and regard a painstaking and intelligent supervision of the digestive tract and its tributary organs as absolutely indispensable in their prevention and treatment. Syphilis, lead, alcohol, and various acute infections, are unquestionably potent factors in the development of arteriosclerosis.

* Read before the Yolo Society for Medical Improvement, November 7, 1905.

I ignore these, however, not only for want of time for their consideration, but also, and more particularly, because I desire to focus attention on more important etiologic factors.

Great judgment is necessary in the regulation of the activities of the patient. Excitement, fear, anger, pain, all forms of active mental labor and physical exertion, particularly if attended by mental effort, markedly increase arterial tension. Emotional disturbances, therefore, and mental or physical strain, should be sedulously avoided.

In advanced or extreme cases, running on a slender margin of cardiac reserve, or approaching the danger point of intracranial tension, both mental and physical rest must be enforced. But mental occupation and physical exercise are physiological necessities, and in the milder cases should be regulated, not unreasonably curtailed. Equanimity, so likely to be seriously disturbed in these cases, should be systematically fostered; although, especially in the early and amenable stages, the patient should be sufficiently impressed with the importance of the condition to secure implicit obedience to a necessary but irksome regimen. Whether from the digestive or the circulatory aspect, it is difficult to exaggerate the value of moral influence. The principles enunciated by Dr. Dubois in his classic and invaluable work, "*Les Psychoneuroses et leur Traitement Moral*," are of much wider application than is implied by the title; but their elucidation here would lead us too far.

Rest and change, relief from harassing responsibilities and from friction of all sorts, assist in restoring the nervous system, and thus indirectly, but powerfully, promote the digestive functions. Recreation and diversion are of inestimable value. Recreations innumerable crowd upon the mind—walking, riding, rowing, fishing, hunting, mountain-climbing, hand-ball, golf, tennis, billiards, nature-study in various forms. Music is one of the best of recreations. In the embarrassment of riches in mechanical players—cecilian, angelus, pianola, eolian, orchestrelle and what not—every taste may be gratified and every whim indulged. By emancipating from years of drudgery, and keeping on tap, as it were, the greatest variety of musical masterpieces, they are destined to play a great part in the hygiene of the nervous system. From a somewhat extended personal knowledge, I find it difficult to praise them too highly. And then literature and art and poetry, noblest of them all! Let Wordsworth lead us back to nature!

In the treatment of gastroenteric autointoxication, whether or not associated with its later phenomena, the causal indications must be kept constantly in the foreground. These may be summarized in one sentence: *Check the abnormal gastroenteric decomposition.* To meet these indications, catarrh of the nose, throat and bronchi should be cured, carious teeth should be either filled or removed, and the mouth should be kept in a clean and healthful condition. The diet in quantity and quality should be adjusted to the requirements of the system and to the capacity of the digestive organs; while ample for all of the needs of the

economy, it must not be excessive, particularly in nucleins and albumenoids, which, by their putrefaction, are the chief if not the sole agents in the morbid conditions under discussion.

The experiments of Chittenden and Folin conclusively demonstrate that the quantity of protein necessary to maintain nitrogenous equilibrium is less than half that estimated by Voit and practically adopted in the American standard of living. A material reduction of protein should therefore usually be advised. A moderate lactofarinaceous diet may easily carry the fifty or sixty grams of protein considered necessary by Chittenden.

We Americans eat—no, we do not eat, we *bolt*—too much food, too rich food, foods unfit by nature and damned by the cook. We are culinary barbarians. Foods, then, should frequently be reduced in quantity, but never below a moving equilibrium of the economy; and they should generally be more scientifically prepared and more esthetically served. Appetite, as Pawlow has demonstrated, is the most powerful adjunct of good digestion. The "appetite juice," as he graphically calls it—the flow of digestive juices excited through the optic, olfactory and gustatory nerves by desire and relish—is abundant and prolonged. It should be stimulated by appeal to the special senses—to memory even, and the association of ideas. The table should be a place of relaxation, leisure and delight.

In the regulation of diet, fresh meats, eggs and fish should first be limited; and legumes, salt and preserved meats and fish—"canned goods," as they are euphemistically called—should be prohibited. If intestinal putrefaction still continues, a lacto-vegetarian, and later if necessary, a strictly vegetarian diet should be adopted. Haig, who is an especial advocate of the vegetarian diet, says it will reduce excessive tension to normal in a short time. While my own results have been favorable, they have not been so prompt and radical as Haig's reports led me to hope.

Changes in diet should generally be gradual and conservative, in order both to educate the tastes of the patient, and to develop latent digestive and assimilative powers. Sudden and radical changes often begin to disgust and end in failure. The dietary, whether mixed, lacto-vegetarian or purely vegetarian, should contain a moderate quantity of fruit and a large quantity of bran. If the views of Federn are correct, bran should serve two important purposes in these cases; as a laxative, and in preventing adhesion of the fecal mass to the bowel mucosa. As a matter of fact, following the practice of Dr. Simmons, I have for several years prescribed it in constipation with excellent results. Each patient should be provided with a diet list as varied as possible, and in as far as possible conforming to his tastes and habits.

Following the suggestions derived from Pawlow's experiments, food, as I have already pointed out, should be "appetizing"; farinaceous foods should be taken dry so as to stimulate the salivary secretions. Oils and fats, with the exception of butter, inhibit gastric secretion, and should not be taken with meals, but two or three hours after,

when they soon enter the bowel and actively promote pancreatic and intestinal secretion. Animal broths powerfully stimulate the stomach, and should precede each meal. In cases of achylia gastrica or marked hypoacidity, from 25 to 50 minims of dilute hydrochloric acid taken in from eight to twelve ounces of highly carbonated water two or three hours after each meal promote the secretions of the liver, pancreas and intestine. Vegetable acids answer a similar purpose and, when they agree, may be used instead of the mineral acids. That foods should be thoroughly masticated one would think goes without saying; and yet only a few months ago a respectable contributor to one of our leading journals gravely maintained that mastication of meats is a work of superogation. This is probably true of the anaconda. As far as man is concerned, however, a consideration of the mathematics of digestion conducts us inevitably to a different conclusion. Speaking broadly, foods are digested entirely from the surface. Therefore, *ceteris paribus*, they digest in ratio to the surface exposed. A solid one inch in diameter exposes one-tenth part of the surface that it would expose if divided into similar solids one-tenth of an inch in diameter, and other things being equal, is consequently one-tenth part as digestible. Starchy foods require thorough mastication not only to increase their surface, but also to mix them with the saliva and thus secure their digestion before they enter the stomach.

If foods are digested by the salivary and gastric secretions, absorption may go on through the entire length of the small intestine. Comparatively little proteids would thus reach the colon to putrefy and poison the venous system. Thorough mastication, moreover, means more time and attention given to the digestive processes, and, within certain limits, a corresponding stimulative and tonic influence on the digestive function.

Normally, foods should be absorbed and their undigested residue excreted within from eighteen to thirty-six hours from the time they are ingested. In conditions of fermentation and putrefaction, their passage should be more rapid. Delay means a greater production and absorption of toxic substances.

In addition to a laxative diet, laxative remedies are often indicated to sweep bacteria and their toxins out of the intestines. Purgation sometimes permanently clears the intestinal tract of noxious bacteria. Calomel, phenolphthalein, cascara, aloes, sulphur, senna are ordinarily to be preferred. Eserine and strychnia assist in toning up the weakened bowel, and should be used in conjunction with laxatives and bitter tonics as required.

In the long run, and presuming the ingestion of only the normal quantity of proteids, the prevention of an abnormal toxicity of the gastroenteric contents depends, in the main, on normal conditions of secretion, motility, absorption and drainage. But these can by no means always be promptly established, and antiseptics, therefore, may be occasionally useful if not indispensable. They may be advantageously combined with laxatives. Naphtha-

lin, although inclined to produce tenesmus, is useful; alphozone is useful in the upper tract, and perhaps in the lower, although my personal observation does not fully convince me; oil of cloves and thymol in an olive oil emulsion with carbonated water two or three hours after meals, has often seemed to me of distinct advantage. It is an admirable stomach disinfectant. In these cases the liver is usually incompetent, and olive oil is possibly useful by the formation in the bowel of sodium oleate, which is said by some to have a distinct cholagogue effect.

Federn extols the faradic current in partial atony. He places one pole over the atonic segment, and the other over the lower sigmoid, over the anus or even within the rectum, and passes the current for fifteen or twenty minutes daily. This may be continued for several months—from three to six—before permanent results can be expected, and even then, relapses occur. I am thoroughly convinced of the great value of electricity, and employ the faradic current after the method of Federn, as well as the sinusoidal and the wave current. Formerly I employed the interrupted galvanic current, but perhaps mistakenly abandoned it on account of the greater convenience of the other currents.

Absorption should be promoted so that as little proteid as possible may pass into the colon to putrefy. Abdominal exercises, massage and vibration, a normal peristalsis and a normal blood-pressure are our chief means for this purpose. Vibration of the spinal nerves, and massage of the abdomen and exercise of the abdominal muscles, are valuable.

The fauna and flora of the human intestine are not exempt from the struggle for existence, or from the interdependencies and antagonisms which dominate the flora and fauna with which we are more familiar. Metchnikoff suggests the possibility of so modifying our intestinal flora as to make it entirely, or at least comparatively, harmless—to transform it, as it were, from a savage into a civilized flora. This seems in a measure to have been accomplished by the use of kefir and kumyss. I have used both in a large but not in a sufficient number of cases, to warrant a personal opinion. That Metchnikoff suggests it is warrant enough for its tentative acceptance.

Atony and dilatation of stomach, functional and organic stenosis of pylorus, the various forms of visceral ptosis and relaxation of the abdominal walls, should be corrected by abdominal exercise, by an efficient support, by electricity, strychnia, and if necessary by an appropriate operation. Mechanical impediments lower down, fissure, fistula and hemorrhoids should receive appropriate treatment. Tobacco, alcohol, tea, coffee, cocoa and chocolate should be interdicted. All of these things either impair digestion, stimulate the heart, or increase peripheral resistance.

Chronic infection of the intestinal mucosa is quite as inveterate as chronic mucous infections elsewhere. It sometimes persists in spite of prolonged and conscientious treatment. In selected cases of this refractory character, it is possible that appen-

dicotomy, with systematic efforts to disinfect the colon might be justifiable. It certainly is a rational procedure, and affords excellent results in chronic dysentery.

In the secondary or degenerative processes and their attendant functional disturbances, the same dietetic, hygienic and therapeutic management as in the primary stage is necessary.

Of the secondary effects, anemia should receive the same treatment as in other conditions; iron, arsenic, manganese, but in their less irritating forms. The peptonates, albuminates, etc., seem to me to be particularly adapted to these cases.

In arteriosclerosis of presumably gastroenteric origin, if the iodides are useful, they have not been brilliantly so under my observation. In deference to general opinion, however, I continue to use them. In some cases, potassium iodide may have retarded the degenerative process, and it has seemed to me distinctly useful in reducing arterial tension.

Arterial hypertension is perhaps just now our most distinguished symptom. But although a symptom, it is also a link in a chain of morbid processes which, unless arrested, lead inevitably to dissolution. Practically all of the measures already indicated are essential in the prevention and cure of arterial hypertension of gastroenteric origin. They remove the cause. In prevention and in the treatment of the early stages, they are sufficient. In addition, the skin should be kept warm so as to dilate the arterioles and capillaries of the cutaneous areas, and thus diminish the peripheral resistance, and consequently arterial tension also. The kidneys should be kept active in order to eliminate toxins and to reduce the volume of blood.

Whenever hypertension menaces either the heart, the arterioles or the circulatory balance, however, more active measures are indispensable. Here the nitrites often render marvelous service. In all my therapeutic experience, I recall nothing else even approximately so spectacular as the effects of a hypodermic of nitroglycerine in edema of the lungs due to rupture of circulatory balance.

If, notwithstanding a strict regimen, the systolic pressure exceeds 160, and particularly if, at the same time, there be evidence either of inadequacy of the heart or of degeneration of the cerebral arterioles, the nitrites should be systematically used in conjunction with potassium iodide. Sodium nitrite, in doses of one decigram or more as necessary to produce its physiological effects, is the best of the nitrites for continued use. The vasomotor centers become gradually, in some cases rapidly, accustomed to the nitrites, and may finally cease to respond to them. Besides, in large doses, sodium nitrite irritates the stomach, and in company with the other nitrites, may have other untoward by-effects. Its use, therefore, should not be begun too early, or continued too unremittingly. When rupture of the circulatory balance threatens, the patient should always have with him amyl nitrite pearls, or hypodermics of nitroglycerine, for use in attacks of cardiac asthma, edema of the lungs, and angina pectoris. I have repeatedly seen life saved and materially prolonged by this precaution.

Aconite and veratrum viride are often useful in subduing the heart's action; but they should rarely be used except in conjunction with the nitrites, and never unless there is evident cardiac reserve. With these limitations, I have found them unquestionably beneficial.

Failing compensation, with secondary low pressure, require the most careful management, even to the minutest details. In these cases a slight increase of the toxemia, by raising the blood-pressure, may exhaust the cardiac reserve. Hence, the diet and the functions of the digestive tract should receive constant and careful attention. Merck's digitalin in liberal doses—from one to three centigrams four times a day—well guarded by the nitrites and continued for a long period, is often of great service. The addition of morphine to secure rest and to stimulate the heart in extreme cases, is a great boon.

In cardiac asthma, and pulmonary edema with hypertension and cardiac reserve, hot-air baths reaching a temperature between 350 and 450 degrees Fahrenheit, I have seen produce phenomenal and permanent improvement. They produce a marked initial lowering of blood-pressure, stimulate the functions of the skin and kidneys, promote metabolism, and probably in undetermined ways promote recovery.

PAIN.*

By E. R. WAGNER, M. D., San Jose.

Pain leads patients to seek medical relief, perhaps more than any other one symptom of disease. The more insistent and obstinate it is, the quicker is relief sought. In no other part of the body is this symptom more frequently manifested than in the head and nowhere else is the cause more apt to be obscure and the relief, consequently, more uncertain. I doubt whether pain is as hard to bear in other parts, as it is in the head; or whether it unfits a man so completely for usefulness in society.

That part of the head which is of greatest interest to the nose and ear specialist, embraces a number of nearly closed cavities, lined with a sensitive mucous membrane. When congestion, exudation or suppuration occurs, the unyielding walls afford but little room for expansion and pressure symptoms, chief among which is pain, are the result. Toothache is often patiently borne, because the consequences of neglect are not usually considered serious. When, however, one learns from statistics that 70 per cent of cases of empyema of the maxillary antrum are due to disease of the teeth, the subject assumes a different aspect. Earache, especially in children used to be treated carelessly, or not at all, but of late years the direful consequences of neglect are becoming more widely known, and pain in the ear of even short duration is cause for anxiety, and doubly so if it occurs in the course of the exanthemata, influenza or diphtheria.

A correct diagnosis of the cause of pain in the ear is essential to effective treatment, and in the

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more serious affections an early diagnosis is very important. Violent throbbing pain may be due to dermatitis phlegmonosa or to follicular inflammation of the external auditory canal. A violent radiating pain may also be caused by herpes zoster, condylomata or foreign bodies. Neuralgia of the external meatus, or the tympanic plexus, may complicate the diagnosis. The neuralgia may be local in origin, or arise from irritation of the trigeminus or cervico-occipital nerves. When from the superior maxillary branch of the trigeminus, the pain is limited to the middle ear. If from the inferior maxillary nerve, it is felt both in the external and middle ear. Carious teeth, especially in children, ulceration or abscess in the pharynx or larynx, affections of the accessory sinuses of the nose, may singly or collectively, cause pain in the ear. Occasionally beginning otosclerosis causes intermittent pains of a stinging and tearing character in the deeper parts of the ear. Traumatic rupture of the tympanic membrane is generally accompanied by pain, and may be followed by long continued and painful suppuration with a secondary inflammation of the external meatus and mastoid. Rarely, the pressure of a very hard plug of cerumen causes a piercing pain, while mycosis and eczema give rise to itching and shooting pains. Acute myringitis is more difficult to differentiate from acute otitis media than any of the preceding, presenting as it does, the signs of inflammation in the tympanic membrane itself. It is distinguished by a shorter duration, generally lasting only three or four days. The hearing is more affected in acute otitis media on account of the copious exudation.

Acute otitis media is always an anxious affection from the anatomical relations of the middle ear. It is shut in by bony walls and the tympanic membrane and its only communication with the outside air is through the narrow eustachian tube. This is about one and a half inches long and its mucous membrane may be swollen so as to render it useless for drainage, or its inner end may be plugged with adenoid tissue. Communicating with the antrum and mastoid cells by the mucous membrane lined aditus, and separated from the brain and lateral sinus by a very thin partition of bone which may be wanting in places, a serious extension of inflammation in the middle ear is a very likely occurrence, which a timely opening of the tympanic membrane is sometimes powerless to prevent. Aural polypi are sometimes accompanied by a feeling of pressure, heaviness and pain in the ear.

The pain in mastoiditis may be persistent or remittent. It is usually increased by pressure, the tender spot often pointing to the location of the abscess. Occasionally, however, there may be no pain nor tenderness. In acute periostitis of the mastoid process the pain is described as violent and radiating, increasing on slight pressure and on motions of the head. Chronic inflammation of the mastoid process may continue for years without symptoms. If in these cases an acute inflammation arises from catching cold, traumatism or infection, violent symptoms occur. There are violent, beating and

piercing pains in the region of the mastoid and radiating toward the cervical region.

In the diagnosis of intracranial diseases of otitic origin pain is a prominent symptom. In extra-dural abscess we get intense pain over the entire temporal bone. Lepto-meningitis diffusa purulenta almost always begins with headaches, which are at first of a remitting character. Later they become more severe with motions of the body and finally become continuous. Headache is also a prominent symptom in meningitis serosa. An abscess in the temporal lobe is often accompanied by headache localized in the parietal region of the affected side, or abscess in the cerebellum by occipital headache. There is often a circumscribed point of tenderness. Headache is a minor symptom in sinus thrombosis. In thrombosis of the cavernous sinus we may have neuralgia of the trigeminus. When thrombi have extended from the lateral sinus to the internal jugular vein, we get a tough band in the course of the latter, which is very painful to pressure.

Pain is as frequent in diseases of the nose and its sinuses as in aural diseases. Foreign bodies animate or inanimate, may be the cause. The larvæ of certain flies sometimes invade the nasal cavity, "maggots in the nose." They cause severe, persistent pain over the frontal occipital, or vertical regions, and severe, throbbing headaches. Nasal lupus is painful, as a rule, to the touch, though its presence and growth give rise to but little pain.

Nasal hydrops and chronic edematous rhinitis may cause headache and pain. Neuralgic pain referred to the vertex, as well as to the upper pharynx and roof of the mouth, sometimes occurs in acute naso-pharyngitis. In osteoma, pain is early present and usually severe. The pressure of a septal spur against the middle turbinate, is a not infrequent cause of obscure headache.

In catarrhal and suppurative inflammations of the frontal sinus, pain is a prominent symptom. It is unilateral or bilateral, according as one or both sinuses are involved. It is severe, heavy and aching or sharp and neuralgic, and is confined to the frontal region. It is made worse by coughing, strong heart stimulants, blowing the nose, or bending the head forward. There is a sense of weight and fulness in the forehead, and marked tenderness of the supraciliary region. In confined suppuration, the pain is localized in the frontal region, is constant, throbbing and boring, with severe headache.

The pain in inflammation of the maxillary sinus varies from a sense of uneasiness or a dull ache, to pain of a very tense character. It may be wanting entirely. It may be intermittent and vaguely localized in the head and cheek. It is often referred to the frontal, maxillary, temporal, or occipital regions, or to several of them at once. In ethmoiditis the pain is deep seated and referred to the posterior region of the orbit, or eyeball. As the disease progresses, it spreads from the infra orbital to the temporal region.

In empyema of the sphenoidal sinus, the pain varies in site and character. The headache may be dull and diffuse, or sharp, localized and neuralgic. The pain may be referred to the supra or infra

orbital nerves; or when there is pent up fluid, it may be referred to the entire distribution of the fifth nerve of the affected side. It is constant or remittent.

From what has been said, it is apparent that pain while at times a valuable differentiating symptom, may again be quite misleading in its indications as to the location of disease. This fact emphasizes the importance of an intimate knowledge of the symptom complex of diseases of the nose and ear. Only a thorough-going familiarity with the anatomy and physiology of the parts will enable the surgeon to relieve these cases with the certainty which modern specialism demands. The continual giving of headache powders in place of discovering and removing the cause, is but little short of malpractice.

The most prolific source of headache remains to be mentioned. According to different authorities, eye-strain is responsible for 40 per cent of all headaches and from 80 per cent to 90 per cent of "biliary headaches." There can be little question now as to the necessity of an early elimination of this important factor in all obscure cases of headache. A thorough examination of the eyes should be made, and it may not be out of place to add, "by an oculist," since there are still some physicians who so little comprehend the necessity of accurate testing of the eyes as to refer patients to the optician for treatment.

I wish to make mention briefly of two cases which have been very instructive to me in the long-drawn-out effort to trace the varied pains to their cause and which illustrate the interdependence of diseases of the eye, ear and nose.

Miss B, age 16, came to me September 4, 1902, on account of constant pain in the eyes. She had worn glasses for ten years. The mother said the vision of the right eye had been bad since an oculist had used homatropin in it a few years before. Later she admitted that this eye never had good vision. The right eye had vision 2-100 not improved by glasses. The left eye vision 10-100 improved to 20-30 with Sph. plus 4.50 and cylinder 3 axis 90 degrees. The optic disc of the right eye was congested and its margins blurred. The eyes were refracted and kept under atropine for some days with a decided temporary relief from pain.

December 17, 1903, Miss B. came to me on account of an ache of two weeks' duration in the left ear. The ear had been discharging for one year. Found an abscess at the outer end of the external auditory canal, pus issuing from the upper part of the tympanum and the lower 2-3 covered with granulations. Removal of these, cleansing with peroxide and a freer opening of the tympanum gave partial relief from pain. December 25th, there was pain and tenderness over the mastoid, with some swelling. Hot irrigations and ice over the mastoid failed to relieve and on December 27th I did a Schwartze operation. No pus collection was found and the bone was sclerosed. Two or three weeks after the operation the patient had boils on the chin and under the arm. Exuberant granulations had to be suppressed and the discharge in the ear did not entirely stop. Early in February the recurring mastoid pain was lessened by curetting, but it later increased so that on March 6th the radical operation was done. Most of the apex was removed and both duramater and sigmoid

sinus were exposed. A Pouse flap was made. After the operation the left eye became more sensitive to light than the right. On March 23rd some albumen was found in the urine, which on April 4th measured only 10 ounces in twenty-four hours. There was pain over the kidneys. Patient said she used to have this pain in school. On April 11th there was complete suppression for twenty-four hours, and only six ounces was passed during the next twenty-four hours. Patient sweat quite a little. Insomnia was a very troublesome symptom, the patient not getting over two or three hours' sleep a day for a long time. Examination of the mastoid discharge showed staphylococci, diplococci and some streptococci. There were no tubercle bacilli found. Pain recurring over the mastoid necessitated a supplementary radical operation. There was a tubercular history on her father's side and a scrofular one on the mother's. For some weeks there was one degree of fever at night. Was rather anemic. July 18th went to Santa Cruz and there she steadily got stronger. The pain became less continuous and gradually the slight discharge ceased. By January, 1905, the ear was well.

During the year the vision of the left eye deteriorated and was now only 20-70 with the correction. The disks were slightly hazy. October 23rd, 1905, the vision was still the same and the same old pain over the right eye. She said her headache was worse on taking cold. There was no discharge from the nose, but the right middle turbinate was full and pressed on the septum at times. I decided to try the effect of cutting off the anterior extremity of the turbinate and was gratified to learn later that her headache, which she had had as long as she could remember, had disappeared.

The other case, Mrs. K., age 40, came to me December 27th, 1902, for her eyes. She had much headache when a girl in school and her vision was never good. For some months she had been having excruciating occipital headaches. She was wearing from an optician spherical plus .50 with a 3 degree prism base out over each eye. The optic disks were congested and the margins somewhat blurred. There was esophoria with right hyperphoria. There were also some peripheral opacities of the lenses. She was refracted under atropine and fitted with, right eye, spherical plus .50 with cylinder plus 2.50 axis 90 degrees; giving vision 20-50; left eye, spherical plus .50 with cylinder plus 1, axis 65 degrees, giving vision 20-30.

Two and one-half years later, May 3rd, 1905, she was sent to me by her family physician on account of great pain in the right eye of four days' duration, which had become unbearable. Half an hour before coming to the office she had experienced a sudden relief from pain, accompanying a discharge of pus from the nose. The only cause she could give for her trouble was sitting in a draft a couple of days before the pain commenced. She had had a discharge in the throat for about a month. Family history negative.

An attempt was first made at cleansing the antrum through an opening made with a trocar in the inferior meatus. The symptoms became more severe, however, and on May 13th a good-sized opening was made with the dental drill through the alveolar floor, where the first molar was gone. The antrum was curetted and a gold tube inserted. On May 7th, following a hemorrhage in the nose, transient pain was felt for the first time in the right ear. Over a month later, June 9th, the patient complained again of pain in the right ear. It was more severe this time, but of short duration. June 28th pus was discovered in the mouth of the right eustachian tube and this appeared to be the chief source of an intermittent discharge in the nasopharynx. About this time also the left eye became painful and there was quite a little discharge from the left antrum. A week later the right ton-

sillar region became painful to touch, and pressure caused a discharge in the throat.

July 7th, marked relief followed the sudden discharge of an amount of pus low down in this region. Tenderness over the right mastoid was complained of for a couple of days. July 13th a paracentesis of the right tympanic membrane was necessitated by an acute otitis media. Two days later marked relief from pain in the head followed the removal of the anterior extremity of the right middle turbinate. August 4th further relief from pain followed a thorough curettement of the right ethmoid cells. Early in September the discharge in the throat became more purulent and the right ear and mastoid painful. The tympanum had been healed nearly two weeks. Paracentesis and ice over the mastoid failed to relieve the symptoms, and on September 11th a Schwartze operation was done. No collection of pus was found, but only a small granulation in the apex. Two months later the mastoid wound having healed and the right antrum and ethmoid become quiescent, the left side of the head, which had been grumbling for some time and had been relieved by an occasional irrigation of the left ethmoid and antrum through the natural openings, began to pain more steadily. November 27th the anterior extremity of the left middle turbinate was removed and a week later the ethmoid cells curetted. To complicate matters the right ethmoid began to trouble again and had to be repeatedly curetted. The stomach also began refusing to do its duty.

January 14, 1906, the right mastoid again became tender. Paracentesis of the tympanum, etc., failed to relieve and on the 18th the mastoid, after having been completely healed for two months, was again opened. As the right antrum was also getting uneasy, it was again opened and the tube re-inserted. Soon after, the right antrum became more violently inflamed than in the first instance. Then the frontal sinuses, especially the right, became tender. Fortunately an occasional irrigation has thus far sufficed to quiet these sinuses. The mastoid wound has been more painful in healing than after the first operation. It is still kept open by an occasional curetting on account of a slight discharge. The opening through the tympanic membrane is also maintained for the purpose of washing out a discharge which still accumulates in the eustachian tube, but does not appear in the external auditory canal. The right maxillary antrum has been quiescent and with no discharge for a few weeks, but the right ethmoid is not yet entirely so.

The left maxillary antrum failed to improve under daily washing through the natural opening, though the discharge was very slight. March 21st, under cocaine, a large opening was made through the molar prominence. There was a small hole in the bone at the extremity of the first molar tooth, from which exuded a few drops of pus. This tooth had a large amalgam filling and was inclined to be tender. It had been examined recently by a dentist, who did not think it was the cause of the antral trouble. The floor of the antrum adjacent to this tooth was covered with granulations and as the rest of the lining membrane appeared healthy the floor alone was thoroughly scraped and the offending tooth extracted.

An effort is being made to build up the general strength of the patient by a change of surroundings together with medicinal tonics. The lowered vitality has shown itself in the teeth, which have frequently of late required the services of a dentist. There is not a day when she is entirely free from pain. If there is not pain in one or more of the several sinuses involved, the teeth take their turn.

There has been a decided blurring of the vision, especially in the right eye. Microscopic examination has failed to disclose tuberculosis in the discharge.

The points of special interest in these cases are the following: Both had suffered for years with headache. They each had compound hyperopic astigmatism, which is a most frequent cause of eye-strain, of considerable degree, which had gone a long time uncorrected. In each there was a decided neurotic element, increasing as the obstinate resistance to treatment continued. In neither was there any pus collection found in the mastoid on operation, though the symptoms were so urgent as to compel the same. In each the temperature stayed below 99 degrees and was often subnormal. The relief from pain was marked at each operative procedure. In each the vision was markedly affected by the accompanying bone and sinus affections.

TRUE SCIATICA AND DISEASES OF THE POSTERIOR URETHRA AND ADNEXA.*

By G. S. PETERKIN, M. D., Seattle, Wash.

Judging from the acts and misunderstandings that occur between man and man, humanity today does not give recognition to the fact that words have only a relative value, and are simply a means of communicating ideas. I do not believe I am mistaken when I say that experience soon causes the practical physician to awaken to this fact, and that in medicine there are two terms more than any others that serve as cloaks of ignorance; they are, first, "rheumatism," and second, "neuralgia."

Cloaks so convenient have they been found, that they have and do cause many of us to think we may wear them consistently, if not constantly; carelessly place under their spacious folds conditions which though allied in character are entities, differ in their etiologic factors, and, therefore, very frequently in the treatment to be employed. This is especially true of many pathologic conditions that are placed under the term "sciatica."

"Sciatica," by the vast majority of authorities, is defined as a neuritis, peri-neuritis, or neuralgia of the sciatic nerve. I have searched a vast number of the best authorities, and by "best" I mean such men as Osler, Church and Peterson, Dana, Tyson, Musser, Starr, Butler, Oppenheim, and others, and nowhere do I find definitely stated that the symptoms accompanying chronic inflammatory conditions of posterior urethra and adnexa are mistaken for, or that such conditions cause, sciatica. Notwithstanding, I myself am firmly convinced that chronic inflammatory conditions of these organs more frequently than has ever been suspected, are the causative factors of the *symptom*, sciatica. My reasons for assuming this position are eight in number:

1. The sacral plexus of nerves from which the great sciatic and its branches are derived, is the plexus that supplies the posterior urethra, prostate, seminal vesicles, bladder, rectum and uterus.
2. It is the function of this plexus to maintain station and locomotion; control the legs; also the posterior muscles of the thigh and buttocks; give

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sensation to these parts and carry fibers that regulate the sexual function, bladder and rectum. Moreover, from the sacral portion of the cord there is an outflow of nerves to the sympathetic, thence to the pelvic organ.

3. In people anesthetized to the degree that consciousness is lost, stretching of the sphincter and will often cause straightening of the legs, a phenomenon you have all observed. In other words, through stimulating some afferent nerve in the rectum, the sciatic nerve receives the impulse and attempts to exercise its principal function, that of maintaining station or the erect position of the body. Likewise under similar conditions this phenomenon will often take place in the male if a sound is passed into the bladder; in the female when the cervix is dilated. Again, in the simple act of irrigating the bladder under hydrostatic pressure, if a very hot solution, 110 degrees to 120 degrees F. is employed, the patient frequently complains of feeling the heat travel along the course of this nerve down the leg to the toe.

4. By the physicians and neurologists mentioned, it is admitted that pressure, for example by ovarian and uterine tumors, impacted feces, etc., will cause sciatica, but affections of the male sexual and genito-urinary organs are not mentioned.

5. In examining the writings of genito-urinary surgeons, we find Fournier states that acute gonorrhea will cause sciatica. White and Martin, that chronic posterior urethritis may; and that chronic vesiculitis is very apt to cause pain in the lumbar region and along the sciatic nerve. Keyes, that the pain in posterior urethritis, prostatitis and especially vesiculitis is frequently neuralgic in character, and may exist in the lumbar region and extend down the sciatic nerve. Taylor, Lydston, Fuller and many others also speak of pain extending down the sciatic nerve and to the lumbar region in diseases of this part of the genito-urinary tract.

6. The ratio of frequency of sciatica in men and women is given as high as 8 to 1 by Church and Peterson; 4 to 1 by Dana.

7. Many conditions named as exciting causes of sciatica, as exposure, severe muscular strain, constipation, etc., are likewise predisposing causes to exacerbations of chronic posterior urethritis, prostatitis, and vesiculitis.

8. Ninety-five per cent of men in large cities have gonorrhea; with a resulting 20 per cent of chronic posterior urethritis, prostatitis, vesiculitis, (not necessarily infectious).

To sum up, we have in 1, 2 and 3 such anatomic, physiologic and clinic evidence of the intimate relationship between nerves supplying the male sexual organs and the sciatic nerves that we may conclude that it is not only possible, but even probable, that inflammatory conditions of these organs will cause reflex pain in the sciatic nerves. In 4, pressure, merely another form of stimulus is admitted to be a cause of sciatica. In 5, we have conclusive evidence, the observation of competent men, that inflammatory conditions of the male sexual organs will cause lumbar and sciatic pain. In 6, we find

that this disease occurs fully five times as frequently in man as in woman. And in 7, that chronic inflammatory condition of the male sexual organs is very prevalent. In 8, that the exciting causes given for sciatica are the same as the predisposing causes to exacerbations of the chronic inflammation of the male sexual organs.

These statements being true, the logical conclusion to be drawn is that one of the main, if not the chief etiologic factor of sciatic and lumbar pain, when the subjective and objective symptoms of a true neuritis is not present, is due in a large percentage of cases in the male to chronic pathologic conditions occurring in 1st, the seminal vesicle; 2d, the prostate; 3d, the posterior urethra; 4th, the anterior urethra, separately or combined.

Yet in the writings of most of the authorities, within whose province it is to treat sciatica, the fact that diseases of the male sexual organs are etiologic factors of great importance, is practically overlooked.

Therefore, I advise that in treating the symptom of pain that occurs in that portion of the human anatomy to which the sciatic nerves are distributed, that we remember the ambiguity of the term sciatica, and if we employ it, subdivide the symptoms that come under its heading in two classes:

(a) Sciatic neuritis or true sciatica, the symptoms of which are those common to all inflamed nerves.

(b) Symptomatic sciatica or false sciatica, the symptom of which is pain in or along the sciatic nerve with absence of the local objective symptoms that accompany a neuritis, such as definite local points of tenderness, sensory and nutritive disturbances, etc.

It is this last class of cases with which we are concerned, and the cure of which will depend upon one's ability to find and remove the causes; and in the male the most probable cause is, as I have stated, chronic inflammatory conditions of the male sexual organs; inflammatory conditions that are not necessarily patent to a superficial examination, but like a small cavity in a tooth must be diligently searched for. Factors that lead one at times to suspect these organs are: a venereal history, not necessarily recent; pain dull instead of lancinating, persistent and consistent in character, frequently worse on rising, but improves with moderate exercise; yet when over-exertion takes place not only is the pain aggravated, but there is also an enervated "gone" feeling, mental and physical, that is not due to, but independent of the pain.

Time being limited, a more detailed description or recital of cases is impossible; nor is it necessary. For the object of this paper is merely to call to mind the importance of examining the male sexual organs before making a diagnosis and instituting treatment for sciatica. If, by physicians and neurologists the fact is recognized and emphasized that it is a logical procedure to examine thoroughly the teeth before making a diagnosis for tri-facial neuralgia, to my mind, it is as essential to thoroughly examine the male sexual organs before making a diagnosis of sciatica; and, judging from personal

experience and observation, if this is done, the number of cases diagnosed as lumbago and sciatica will diminish. Moreover, the belief will perhaps enter your mind as it has mine that the hip joint alone is at times invaded by gonococcus or its toxins, and when it is, the symptoms are such that an erroneous diagnosis of lumbago or sciatica will be made if the cause of the pain is not systematically sought for.

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CHOICE OF ANESTHESIA.*

By H. L. PARISH, M. D., Calistoga.

The choice of an anesthetic calls for the consideration of the purpose for which it is to be given, the patient upon whom it is to be used, and the agent with which anesthesia is to be accomplished. This will include a somewhat detailed description of the various agents and forms of anesthesia, and multiple pathological states, only upon an understanding of which can an appropriate choice be made.

The patient is the chief factor in the problem. His interest demands careful inquiry regarding age and heredity, an accurate comprehension of his physical status, and to what extent it has been influenced by the pathological entity, whose existence now calls for surgical intervention.

Local anesthetics act mechanically by nerve pressure, and physiologically by paralysis and temporary inhibition of nerve conductivity. Under this head, mention will be made of cocaine and ethyl chloride only, calling attention, in passing to their uses in dental practice, in eye, ear, nose and throat work, in the opening of furuncles and superficial abscesses, the removal of sebaceous cysts, external piles, anal fissure, etc.

The wider application of cocaine in a field originally occupied by general anesthetics, viz: the radical cure of inguinal and femoral hernia, requires more than passing notice. Its advantages are numerous: Safety, by reason of the small amount of cocaine required, (the parts being com-

pletely anesthetized by a system of nerve blocking as practiced by Bodine, with $\frac{1}{4}$ per cent aqueous solution), absence of shock, the possibility of leaving the parts in situ for such time as is necessary to determine the vitality of the bowel in strangulated hernia, and the voluntary assistance rendered by the patient in locating the sac. The contraindications are two: Extreme youth and excessive nervousness in adult patients.

General anesthetics act by paralyzing the motor and sensory centers in the cord, medulla and cerebral cortex, leaving intact those governing the respiratory and cardiac functions. Of these agents mention will be made of ethyl chloride, nitrous oxide, cocaine, chloroform and ether.

A constantly growing use of ethyl chloride seems to have fixed its utility beyond cavil. Its field of usefulness is confined, however, within narrow limits, it being specially suitable in nose and throat operations. In point of safety, it occupies a position between nitrous oxide and ether. It is distinctive in the rapidity with which anesthesia may be induced and recovered from, the absence of dyspnea and vomiting, its pleasant effects, and small cost. The promptness with which it acts, expending its energy upon the cardiac and respiratory organs, and the possibility of overdosage, demand the exercise of much circumspection in its administration.

Nitrous oxide is the safest general anesthetic known, and combined with oxygen, its mortality is almost nil. Its sphere of usefulness, like that of ethyl chloride, is limited. Its special application is in the young and aged and in weak, anemic women. It is chiefly employed to hasten ether anesthesia, for which it possesses peculiar fitness, because of the similarity in physiological action. Owing to the increase in blood pressure, it is contraindicated in the presence of marked arterio-sclerosis, the apoplectic habit, and in thin-walled aneurysms. The objections to its use are the cost, the rather complicated apparatus required, the need of oxygen, and the fact that it is not always procurable.

Cocaine introduced into the medullary canal produces sufficient anesthesia, when it acts at all, for most operations below the diaphragm, and may be resorted to when both chloroform and ether are contraindicated. Unpleasant after effects have almost entirely disappeared since the substitution of tropa-cocaine. The following pathological conditions are specially suitable for intra-spinal anesthesia: Myocardial and endocardial degenerations, particularly when associated with respiratory and renal complications; in alcoholics with atheromatous arteries and fatty heart; laryngeal and bronchial obstructions from catarrhal states or from new growths; acute bronchitis and cardiac asthma. It is of questionable utility in operations upon the young, and upon nervous patients, where the urgent demands upon the personal attention of the surgeon, in allaying fears, might detract from the care necessary to the successful performance of his work.

In operations upon the intestines, particularly the upper portion of the alimentary tract, stomach

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and duodenum, and in gall-bladder surgery, where complete muscular relaxation is demanded, intraspinal cocainization is debatable. In the presence of spinal deformity, and in stout people, making the location of the spinous processes and the passage of the needle difficult, or in the presence of a skin lesion, the method would be contraindicated.

At no time since the birth of anesthesia, has there been presented to a suffering world an agent more potent for both good and ill, nor more alluring in its possibilities, than chloroform. So positive are its effects in producing anesthesia, with a minimum discomfort to the patient, that it has taken precedence over all other agents to such an extent that many surgeons have come to a predilection for chloroform without consideration of its dangers.

A study of its physiological action presents many difficulties, in as much as the findings of different observers offer such a diversity of opinion. The evidence adduced, however, from experimental study, clinical observation and autopsy findings, unquestionably demonstrates that chloroform is a direct depressant to the heart muscle or its contained ganglia, and that the early fall of blood pressure which occurs in the chloroformization is in a great part, if not altogether, due to this fact. Hence the anesthetist should thoroughly acquaint himself, by every available means of inquiry, physical exploration, urinalysis, blood examination, and a study of the personal and family history, with the presence or absence of cardiac mischief. Respiratory disorders and extensive renal lesions are as liable to compromise the issue as any grave cardiac disease. Each person to whom chloroform is given requires a specific dosage, nor does study of the patient reveal what the amount may be. Only a certain percentage of the drug poured from the container is inhaled and afterwards absorbed by the blood, and owing to the differing densities of atmospheres, rate and depth of respiration, the admixture of air, and the frequency with which chloroform is dropped, but an approximate estimate can be made of the actual amount of vapor absorbed.

The patient requires also a definite amount of oxygen, but if, as frequently happens, a close-fitting mask is applied to the face, and an excessive amount of the drug is poured on, a greater supply of vapor is furnished than is needed. The breathing ceases, with the patient in a semi-narcotized state, and at the suggestion of the anesthetizer, he takes deep inspirations, the anesthetizer meeting the emergency with more chloroform, in the hope of getting the patient quickly under. Under the enforced pressure, the chloroform is quickly absorbed from the distended lungs, and the zone of danger is entered. The patient is said to possess an idiosyncrasy, and ether is quickly substituted.

On the other hand, by a free admixture of air, and a slow administration at the start, the probable amount of the drug required can be foretold with a fair degree of certainty, and the quantity increased, diminished, or withdrawn. The importance of this may be understood in view of the fact that it is in the early stage of chloroform anesthesia that death occurs. If an anesthetist bears in mind the fact that the nearer the muscular integrity of

the heart is discerned the greater the safety, he will at once have a key to the lesion which may prove the basis of complications.

Sulphuric ether is primarily a heart stimulant. Its administration is usually attended by a number of unpleasant features, and while being recognized as superior in point of safety to chloroform, has not enjoyed in some sections the popularity it deserves.

Experimental study and clinical observation corroborate each other in a determination of its physiological action, reveal the cause of the undesirable qualities of ether anesthesia, as well as point out to a degree, a rational means of obviating them, and at the same time augmenting the effect most to be desired. In ether anesthesia the pulse is quickened and increased in force, a condition which is often maintained during prolonged narcosis. Concomitantly with the increase in the strength of the heart's action, the face flushes, hyperemia of the lungs and brain and internal organs ensue, the pupils dilate, profuse sweating and bronchial secretion occur, followed by a fall in temperature.

If taken in concentrated form, there is usually in the beginning, momentary arrest of respiration, accompanied by a decided sense of suffocation, the result of the irritant action of the vapor upon the upper air passages. As soon as this has passed off, the respirations are usually accelerated, as well as deepened, but as the stage of anesthesia is reached, they become slower, and if the inhalation be persisted in, they grow not only more and more infrequent, but also more shallow, until they are gradually extinguished. When death is produced by ether, the heart generally continues to pulsate after the arrest of respiration. It is evident that ether is as little a cardiac depressant as alcohol.

Patients subject to the following lesions belong to the hazardous class: Acute colds affecting the respiratory tract, bronchitis, asthma, emphysema, hypertrophied tonsils, adenoids and growths of the pharynx, larynx, goiter, brain lesions, aneurism, chronic renal disease with rigid arteries and high tension pulse, dilated right heart with bronchitis, diabetes, and double empyema.

The occurrence of ether pneumonia, from inspiratory efforts following vomiting, as well as from the chilling of the blood stream and lowering of body temperature, may in a large measure be avoided by painstaking prophylaxis, such as the avoidance of food six hours before giving ether, careful toilet of the mouth, lavage, and the application of heat during and after etherization; and nearly all the evil effects accompanying its use may be prevented by a slow administration at the start, with a free admixture of air, thus producing a tolerance of the upper air passages, permitting a more rapid use of the drug by the drop method, quickly taking the patient into complete surgical anesthesia requiring less than five minutes to reach this result.

A death rate of 1 to 3,000 in the use of chloroform, to 1 to 15,000 with ether, is calculated to cause the surgeon, whose use of the former has been largely one of expediency, to reflect seriously upon his choice, before subjecting his patient to its risks, and to stimulate active efforts looking toward a more complete elimination of the unpleasant effects of the latter.

LOCAL ANESTHESIA.*

By T. C. EDWARDS, M. D., Salinas.

Local anesthesia, by the introduction into the tissues of some neutral or physiologically active drug, has been practiced for a score of years or more. It seems, therefore, that we have had ample time to arrive at some definite conclusions as to its uses and abuses.

When the use of cocaine for this purpose was first brought to the notice of the profession, solutions varying in strength from 4 per cent to 10 per cent were used. An unwarranted and dangerous quantity of the drug was consequently introduced into the circulation and many accidents and not a few mortalities were recorded.

Naturally "cocaine anesthesia" was discarded by the major portion of the profession as being too dangerous. Careful investigators have shown us, however, that exceedingly weak solutions will give satisfactory results without producing appreciable constitutional effects. Solutions containing 1-5 per cent of cocaine and 3-5 per cent of b. eucaïn, have replaced the stronger solutions, and many surgeons are performing even major operations in this way.

"Making assurance doubly sure," Bodine (1) claims that we have, in morphine, a perfect physiological antidote for cocaine, and he advises a hypodermic injection of morphine 15 or 20 minutes prior to the use of the local anesthetic, thus obviating all possibility of alarming symptoms. Its use does not at all interfere with the analgesic effect of the cocaine.

Recently Braun (2) and Barker (3) have shown that the addition of epinephrin to the cocaine solution (1-150000) prolongs the anesthetic effect from 15 minutes to 3 or four hours and is perfectly satisfactory in controlling bleeding.

Pennington (4), after using various solutions in experimental work, has found that those which are isotonic with blood serum interfere least with normal cellular activity, and consequently give best results. For this reason, physiological salt solution is ideal. The solution recommended by Braun (2), Barker (3) and Pennington (4) is as follows:

b. eucaïn	grs. 2
sodii chloridi	grs. 11½
solution epinephrin (1-1000) ..	gtts. 10
aquæ	ozs. 3½

The whole of this solution may be used at one time, and those who use it claim equally good results from the b. eucaïn as are derived from cocaine. The maximum amount of cocaine, however, would be one third the amount of b. eucaïn. Bodine (1) uses one grain of cocaine to the ounce of physiological salt solution for the integument and for "nerve blocking," and one half this strength for subdermic infiltration.

Reports are coming from all parts of the world

of the many, even major, operations done under local anesthesia, while minor operative procedures are quite common. Bodine (1) reports 300 operations for the radical cure of inguinal hernia on patients from 15 to 80 years of age. In no case was more than ½ grain of cocaine used. Gant (5) reports various operations about the anus and rectum, and says that the number of operative procedures under local anesthesia is rapidly increasing, and the number under general anesthesia is correspondingly growing less. Stevens (6) has used Gant's technic doing various operations, among them an exploratory laparotomy.

Webster's (7) paper, entitled "More Local and Less General Anesthesia in Gynecologic Operations," gives much valuable technical information to the gynecologist. The character of the work interests us as showing what can be done. He says, "Various plastic operations on the cervix, vagina and vulva may thus be carried out." Again, "Various operations may be carried out after the abdomen is opened, e. g., removal of diseased tubes and ovaries, shortening of the round ligament, myomectomy, supra vaginal amputation of the uterus, apendectomy, resection of the intestine," etc. He reports the removal of a myo-fibroma weighing 87 lbs., and remarks that but once in five years has he been compelled to resort to a general anesthetic when the work was begun under a local. Crile (8) amputates at the shoulder and Reclus has 7000 operations without a death.

The technic is simple. I will not presume to give it, as it is undoubtedly familiar to you all. In the literature of the subject, we frequently find an apology for the use of local anesthesia as if it were something of which to be ashamed. We read, "patient too weak to stand a general anesthetic"—"Kidneys contraindicate a general anesthetic"—"Heart would not stand a general anesthetic"—"Hemoglobin percentage too low to admit of a general anesthetic."

Now, if these statements are true and these unsatisfactory patients are successfully operated upon under local anesthesia (and they undoubtedly are), of what are we afraid, and what excuse can we make for subjecting patients to the dangers of general anesthesia, however slight? We all know how anxiously we watch our patients after general anesthesia, apprehensive for days, dreading complications from this source. There is none of this after the use of the local anesthetic. The functions of the body remain in continued healthy activity and contribute this much toward a successful issue.

I bespeak a more careful study of the merits of the local method, believing, as I do, that its more general use will give a lessened mortality and superior ultimate results.

- 1.—Med. Record, Oct. 21, '05.
- 2.—Med. Record, Dec. 12, '03.
- 3.—British Med. Jour., Dec. 24, '04.
- 4.—J. A. M. A., Apr. 8, '05.
- 5.—Disease Rectum and Anus, P. 671.
- 6.—J. A. M. A., Apr. 29, '05.
- 7.—J. A. M. A., Apr. 23, '04.
- 8.—Ricketts in Med. Record, Apr. 12, '02.

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THE CONSERVATIVE TREATMENT OF HIP DISEASE.*

By S. J. HUNKIN, M. D., San Francisco.

Before considering the subject proper, I desire to discuss briefly just what is here meant by hip disease. The condition here considered is a chronic, usually insidious, destructive disease of the hip, beginning as a rule as an osteitis in, or around the epiphysis of the femoral head, although it may start as an osteitis around the "Y" cartilage in the floor of the acetabulum, and very rarely as a synovitis in the hip joint; the exact percentage, however, originating in these various sites I shall not waste time in discussing, as beautiful tables illustrating this point are fully displayed in almost every text-book on orthopedics. I have said a chronic, insidious disease and this is in the main true, yet I have seen a few cases in which, clinically at least, the symptoms were unprovoked, and several in which the symptoms followed directly upon an injury, or so directly that one could not help noticing some significance of the trauma in the etiology.

While dealing with hip disease in general, my remarks are particularly applicable to the condition as found in children, and will not always be true of the disease in adolescents or adults. While not considering proportions, the great mass of these cases are, I believe, tuberculous in character and in origin, although my work is leading me to believe that possibly some begin with other infections and subsequently develop tuberculosis, and that a few may, and I emphasize the *may*, begin and end without tubercle. I am fully aware that the last will be treated by some of my friends as rank heresy and as beside the question; but so long as these cases cannot always be separated clinically, and in some instances they cannot be in the early stages, and in a few perhaps offer difficulties later, for my purpose, which is a conservative treatment of hip disease, they must be considered together. Especially in young adults the questions of gonorrheal infection, and in a few, osteo-arthritis, have not always been distinguishable from tubercle; and hip disease has been the best diagnosis that I could make. In children I have sometimes been baffled to decide between tubercle and lues, and have even considered in rare instances the question of both infections at the same time. I am familiar with the aid to diagnosis sometimes offered by tuberculin, but the definite local reaction so ably noted by other observers has not usually been noted by me, and general reaction, where I have been aware of possibly other foci, enlarged cervical and perhaps bronchial glands, has not always been conclusive; hence while the etiology is not generally in doubt, it happens that I must fain be content with "hip disease" for diagnosis.

Given then a patient with the usual symptoms of lamed function, limp, spasm, interference with the extremes of motion, especially with rotation (in this early stage with these symptoms perhaps intermittent, and with no evident deformity) how can it

best be treated to conserve the joint, the limb, the health, and possibly the life? All orthopedic men, and in fact all surgeons, so far as I know, with a single exception, are firmly of the opinion that rest is the essential element; however much they may differ how best this is to be carried out, rest is accepted as the great remedy. Although at different times in the progress of surgery, men have sought quicker roads to fame and wealth, yet ever, as the pendulum swings have they come back to the safe and narrow path of conservatism, with rest as its foundation.

Early and late authorities, in modern medicine at least, are in full accord as to the value of rest at this stage. Whitman (2d edition, page 257) says: "At one time early operation, even excision, was justified on the plea that the disease might thus be eradicated, but now it is known that in nearly all cases other tuberculous foci exist in the body, and the functional results after these early operations are far inferior to those attained under conservative treatment." Hilton (page 359): "Hip disease is not so commonly scrofulous as supposed, or if scrofulous is curable by rest."

"I may say that I have never seen a severe case of hip disease where the patient has not improved by proper rest."

Brodie (4th edition, page 94): "I have known cases in which rest alone was sufficient to produce a cure. In all cases the symptoms are alleviated by keeping the limb in a state of the most perfect quietude, and this is a very important if not the most important circumstance to be attended to in the treatment." This is about the most positive statement in Brodie, a work written at a time when the most active surgical interference was in absolute sway.

How best may we give rest to the lamed joint? The work done by a joint, it seems to me, can be resolved into two forms; motion and weight carrying, or friction and pressure. Attempts to combat this are made in various ways, and these also can practically be resolved into those which are calculated to lessen or prevent pressure—that is traction (oft called extension) aided by what Whitman calls stiltling, during locomotion; and second, immobilization, which in its efficient application gives rest to motion, or the work due to friction between the joint surfaces. It is to me still an open question whether the rest secured by traction as *usually applied* or rather, as generally maintained, is of especial value in the majority of cases, except from the immobilization incidentally obtained. While in some instances I am able to secure relief from pain and spasm with properly applied traction, after attempts at immobilization have failed, yet in the majority of cases the reverse has been true, immobilization giving better and quicker relief than traction; and I feel that my failures always to get the desired relief were due to my failures to secure the desired immobilization. The tendency of man is to follow the direction of least resistance, and when many attempts are necessary before success is obtained, one finds it much easier to change amounts

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of traction and direction of pull, than it is to change splints. It has appeared sometimes, however, that after a vicious circle of "spasm, pain, spasm," has been for some time established, that traction has controlled the muscle-spasm more readily than splinting; but this in my experience is rarely the case; better than either, however, in the difficult cases, is both—a small amount of traction added to immobilization.

Hilton, again, says that to favor ankylosis the joint surfaces should be kept easily and steadily in contact, and it seems to me that it is also the best plan to promote repair and favor return to the normal. Gibney: "Whatever ankylosis occurs in a joint subjected to immobilization occurs by reason not of the immobilization, but of the nature and intensity of the inflammations and of the inefficiency of the apparatus employed." This observation of Gibney is to me a truism, and holds in my opinion in recovery from injuries of joints, as well as from the disease.

While arguing that it appears more necessary to limit or prevent motion in the acute stages, I do not wish to be understood as believing that pressure work is of no moment—increased pressure, jars, even the small and repeated traumatism of locomotion, are often badly resented in the acute stages and should then be regularly prevented. It does not appear to me that arguments directed to show that traction of a proper amount applied continuously lessens pressure in the joint and perhaps separates the joint surfaces, are well chosen in this relation. We are not considering normal pressure, but are dealing with greatly increased jerk-pressure; what older patients describe as spasmodic blows due to the head of the femur being driven into the acetabulum by spasms of the muscles. The spasm is caused by efforts of nature to immobilize the joint, in order to prevent the irritation of motion between the joint surfaces. Immobilization should, and usually does, control the spasm and prevents the abnormal forcible pressure and secures rest.

Accepting rest as surgically the essential feature in the treatment of hip disease, it is proper to ask what measure of rest is necessary to promote repair. Is absolute rest necessary or even advisable, and if so, for how long? Located as the hip is, with the body balanced upon the femoral heads in the erect posture, the merest sway of the body is followed by changes in the position of the joint structures; in fact scarcely a movement of the trunk can be made in any posture without motion in the hip. Absolute rest for any prolonged period is impracticable in the stages when the disease is active, hence at this period we try to secure rest as absolute as can be obtained, and one naturally adds traction to his attempted immobilization, in an effort to obtain it as nearly as possible. Fortunately, however, this rest absolute is not an essential feature for more than a few weeks at a time, and perhaps not at all in the majority of cases. I am being steadily forced to believe that entire freedom from work over a long period is not essential, and probably not desirable, as a routine measure. I doubt whether work

in both its phases, and controlled well within the limits of pain and spasm, is not often an advantage, except in the very acute stage or in rapidly progressive cases. Of course one has ever a doubt as to where these limits are, and one naturally tries to confine the work well within the questionable bounds.

Later in the disease I think it probable that motion within the limits of pain or spasm, particularly in a direction away from, or contrary to the natural deformity trend, favors repair and return to functional ability.

On the contrary, one should be chary in allowing motion towards the usual deformity positions until convalescence or repair is assured. Immobilization is attempted in a position of full 180 degrees extension. In the early stages of disease, neither abduction nor adduction is allowed, nor rotation inwards nor outwards; later, extension with abduction and control of rotation, but at all times and in all circumstances, full extension is imperative. I esteem this position of full 180 degrees extension, as one of the most important features in the conservative treatment of hip disease, and believe that the failure to secure this position is the prime cause of deformity and shortening. It is held by many orthopedic gentlemen that shortening is greater in hips treated throughout by splinting, than in those treated with traction. While this is perhaps true in children when fixation is attempted with the joint more or less flexed, it has not appeared to me when full extension has been secured. I was led to this opinion originally by noting the direction of the erosion of the acetabulum in cases presenting much shortening. Treatment can then be reduced in the majority of simple cases, at least, to immobilization in the full extended position, arranged in such manner as to prevent the usual rotation and adduction deformities, and all well within the limits of pain and spasm.

How long is the child kept in bed? The child should only be confined to bed when it appears necessary for its general condition or when it is impracticable to secure local rest, within the given limits, without it—that is, the child is never confined to bed when its general vitality allows it to be up and the requisite rest to the joint can be obtained. Outdoor life is a very essential feature in repair of tuberculous infections, and theorise as we may, under circumstances that are within our control; for practical purposes, a child confined to bed is, to a large extent, confined to the house, and house dwellers are tubercle breeders. In theory a child confined to bed for the treatment of tuberculous joint lesions, spends a great deal of time out of doors, or rests in front of an open window. This is all well understood in theory, but in practice it is usually a farce, and the child's average of full sunlight and free, unconfined air is generally very low, even with the best intentions of its parents. Hence the rule, no confinement when symptoms can be controlled without confinement, and the majority of children go to bed nights as healthy children do. I generally have them rest more than other children and lie down for a couple of hours out of doors in the middle of the day, and this is readily secured.

The method of securing immobility and rest is of no importance and must of necessity vary with different men, and their skill with mechanical appliances. I usually use plaster-of-Paris, and ship the children with confidence all over the coast—from Alaska to San Diego—and have at present a girl at each extreme. It subserves a good purpose with me. Ofttimes I use a modified Phelps splint—the material amounts to no more than the paint in a picture, but it is a good splint of whatever style of material it may be when it is applied in such a manner as to maintain full extension, prevent deformity and secure rest sufficient to control pain and spasm. I have devised a plaster splint which answers this purpose to a great extent—its character, its comfort, its approximate cleanliness, its safety, and its efficiency, can be seen in many of the children presented before you. Surely when disturbing symptoms cannot be controlled, with the child around, we naturally confine the patient for a few days or perhaps weeks, until the acute sensitiveness has gone; but at all times the great advantage of out-door treatment is kept uppermost in mind. So much for a child in whom the disease pursues a simple course.

But what when the case is complicated, as a very large percentage (50 per cent to 60 per cent in late years), are complicated with abscess? This in my opinion does not call for any especial change in the plan of treatment; the child is allowed to get about as usual—a carefully fitted splint or bandage gives support to the abscess and the child is watched a little more carefully. If the abscess rapidly increases in size, or is of moderate size and remains for many months, it is aspirated at a point rather remote from the dependent or thinned area. This procedure is repeated whenever necessary, a definite attempt being made in this manner to prevent the ulceration of the abscess, and this succeeds in a large number (in private work about 50 per cent), and in most of the remainder the opening is delayed long enough for nature apparently to erect a barrier between it and the joint, so that when ulceration happens, there is no direct path between the diseased bone and the outer world, and the danger of secondary infection of any extent is not acute. Often in spite of our efforts, the abscess ulcerates and discharges, frequently using as a portal an aspirating puncture, and it may be necessary to keep the child in bed a week or two, more to favor cleanliness, to control and confine the discharge within esthetic bounds, than for danger to life or limb. No meddling with the wound is permitted, only sterile dressings (changed often enough to prevent soiling), being used. As soon as the discharge has lessened enough to allow of easy and safe handling the child is up and around, the future history usually being that after a few weeks the discharge is reduced to a few drops daily, and within a few months it stops and the sinus closes. Perhaps it may later reopen (but usually if proper care is taken it does not) and the case usually goes on as before, with no doubt more chance of eventual ankylosis.

the joint is destroyed, when radiograms show apparently the whole epiphysis has been disorganized and no joint line can be distinguished, when the head of the bone and the upper rim of the acetabulum have been eroded, when clinically we find the head of the femur on the dorsum of the ilium, and a large abscess complicates the pathological dislocation, when the child has been lying with its hip in a position of right angle flexion and 25 degrees adduction for weeks, screaming at the slightest movement, surely now resection is necessary. No, even now my experience teaches me that mutilating operations are rarely necessary; that the conservatism that conserves the bone, still offers by far the best chance of recovery with a useful limb. We are in the habit of replacing the head of the femur at the acetabular site, and fixing it there with the leg in *full extension* and about 30 degrees abduction, with a plaster spica. We prefer to establish position at once under an anesthetic, taking time enough to easily secure 180 degrees extension. In place of the rapid relocation we rarely put the child recumbent, and apply traction in line of deformity, and gradually get replacement by altering the line of traction as the tissues yield; but of late years I prefer the rapid relocation at one seance and think I get better position. We then keep the child in bed for a few weeks, changing the splint often enough to keep track of the abscess, and later get the child up and out on crutches. The argument against this procedure is that forcible re-position is likely to open up new paths into the general circulation for tuberculous products. The argument to me is not well taken, for it is very questionable, whether so many more direct paths would be furnished by proper force applied for a few minutes only, and followed by approximate rest, than by the slow, and perhaps spasmodic grinding of the eroded head over the edge of the acetabulum for an unknown period; and again, we are not considering the disturbing of a healed focus of tubercle, but the better course to pursue when the two surfaces are exposed and perhaps weltering in tuberculous detritus.

I am well aware that advocacy of such a conservative course, lays me open in the house of my friends to a charge of being "conservative mad," and I am free to admit that such a plan a few years since would have appeared to me unsurgical and dangerous; yet my experience has taught me, in the case of small children at least, that no surgical plan is so bad and fraught with so much danger, both present and future, as a plan which holds any radical operation as its base. Time was when we resected such joints—when we operated early and often, aye long before the children reached the condition now being considered, and the remnants of the children who are left haunt us still. The fact is that usually after either of the procedures advocated, the case goes along more or less gently, the abscess gives us later more or less trouble and in two or three years the patient recovers with a very useful although perhaps ankylosed hip. I do not mean to say that all of the children treated in this manner recover. Some children melt down before

But when greater destruction is present, when

tubercle, like well dried tinder before the glowing spark, but I do believe that a far greater proportion get well, and these have longer, abler legs, when treated in this manner than when the joint cavity has been invaded and the epiphysis is opened up to risk of infection by the surgeon. A certain proportion die of tuberculous meningitis, but I do not know that any larger percentage escape this fate than after the knife and scoop of the operative surgeon; but of this I am assured, that secondary infections of joints, that open sinuses discharging for months and years, that septic fevers, that amyloid degenerations, that the train of brownie, elf-looking caricatures of humanity, are more frequent in the wake of operative surgeons than when mutilating operations are carefully eschewed in growing children.

So far I have spoken of conservative procedures in the treatment of children with bone tuberculosis, advocating non-intra-articular meddling in its widest sense as opposed to radical operative plans, as offering the best and safest treatment to conserve life and limb and promote early recovery; but in children of tender years even this aim is perhaps overshadowed by the question of future growth and development.

Several years ago while addressing this society on the matter of the excision of joints I cited the case of a young woman who had come into my office some time after an excision, wearing a sixteen-year-old leg on one side and an eight-year-old leg on the other. This made a decidedly grim impression on me and ever and anon still old excision cases come before me, and in the great majority of them, in whom the excision was made in early life, the end result is decidedly bad, both from an esthetic as well as utilitarian aspect, and the younger the patient at the time of the operation, the worse the termination. In fact, speaking of the result as bad, rather feebly expresses the condition found after the lapse of six to ten years. Surely the last end of these patients is worse than the first, and is not to be compared to the end result ordinarily obtained in children who have had the benefit of modern sanitary, careful, outdoor treatment for tuberculosis and whose hips have at the same time received efficient protective care.

Why so great difference exists against operative surgery which has made such immense strides along other lines is hard to fully understand. Why an epiphysis which is only interfered with by the contiguity of tuberculous foci, or is perhaps attacked in part by the growth of inflammatory or tuberculous products should still more or less perfectly functionate, or even rarely become stimulated to over-growth is readily seen, but why an epiphyseal cartilage, which is so involved and broken down as to be apparently practically separated from the organism by an area of rarified cells, filled with cheesy deposits, or with granular, fatty, yellowish material, with no evident blood supply—why such an epiphysis should be more valuable to the development of the limb, in situ than in vitrio, is not very apparent to me; yet I am firmly of the opinion that the growth

of the leg goes on much better with the rotten-like head and neck in place, than when it is in a jar. For future growth and development it appears that a disorganized tuberculous epiphysis is far better than no epiphysis.

To what extent should the ultra conservative protective—rest treatment—be pushed? I am satisfied that it is safe and advisable to a far greater extent than is usual in this country and to far wider limits than I thought possible even three years ago. I have ever been seriously asking myself the question, of late, whether in the large majority of instances of hip disease in children who are well within the age limits, if it is not the better part of wisdom to refuse resection in all cases, considering the possibility of ablation, rather than resection, for the cases in which conservative treatment added to general anti-tubercular treatment had failed. I cannot answer this question positively, but events are transpiring which are sensibly pushing me nearer an affirmative reply; holding closely the belief, however, that the fight is not lost because there is a large abscess in or around the joint, and the bone structure has become somewhat disorganized.

Lately there has been offered for your consideration by an earnest, eminent gentleman of this city (and whose very earnestness and honesty make me timorous in dissenting), a somewhat new operation for the cure of hip disease—a simple procedure, which may however make its advocate great tomorrow. A simple operation, consisting of a mere tunnelling of the trochanter up through the neck into the head of the femur and into the midst of the diffused granuloma; a scooping gently in the dark, and what appears to me to be a mild invitation to the tubercle bacilli to use the tunnelled path, and the thing is done. Like the swine in the parable, the bacilli rush down the narrow path into the sea and are choked—in a few days there is a discharge of pus, the tract closes up rather promptly and the child goes on rejoicing, having been saved at the least years of suffering and confinement. The gentleman in support of his contention offers three cases and however we may differ as to the diagnosis in two, the third is to me typically a child with tuberculous hip disease, and I cannot explain it. If tuberculous (and there was unfortunately no bacteriological nor inoculation experiments as evidence) the tubercle may yet claim its own—time alone can tell. Tuberculous bone in my experience has not acted nor healed in this manner; yet one must not hastily condemn, out of one's ignorance.

We all remember how the simple operation of appendectomy, for the cure of the hydra-headed inflammation of the bowels was scouted by many, and when I look back, I wonder at my temerity in opposing the idea. The operation, while original with its proponent here, is not exactly new—it was done by many men before, notably by McNamara, and although I have not performed it, I saw Sherman make the operation at least ten years ago. The merits of a focal operation of any kind versus a resection are very evident. Leaving the matter of interfering with the epiphyseal line out of the ques-

tion, how is the focal point to be determined? The radiogram in my judgment does not point it out (very rarely can a focus be noted on a plate) but only shows a diffused cloudiness and loss of outline as evidence of the disease, and not infrequently the process begins in the acetabulum; generally we are not able to distinguish between them, and to cut down on every child who presents symptoms of hip disease and hollow out the head and neck of the femur, interfere with the epiphysis and pave the way for a secondary infection into the midst of a tuberculous infiltration, when at all other times we look upon such a secondary infection as a catastrophe to be avoided at many hazards—and all this in a child in whom a focus cannot be located, and which may not be in the femur, and in a child who is winning against tubercle and isolating it, is to me rather serious and dangerous surgery.

EFFECT OF PROPRIETARY LITERATURE ON MEDICAL MEN.

By N. S. DAVIS, M. D., Chicago.

The printed matter issued by the manufacturers of proprietary and exclusive medicines is as various as are their products. The smaller part has a high scientific value; the larger part is more or less clever advertisement of wares for sale.

Naturally, as a monopoly of a good thing is sure to bring wealth to the manufacturer, almost every drug maker endeavors to place on the market one or many specialties of his own. To insure his exclusive right to manufacture them, it is usual for him to patent the process or trademark the name.

The clever manufacturers employ able men of science to test with care the physiologic and therapeutic actions of their drugs, and these reports, when given to us in full, are of genuine value. In subsequent advertising, however, the results obtained are summarized, and often so skilfully that disagreeable effects are lost sight of or minimized. Moreover, these summaries are imbedded in a mass of optimistic writing by the advertiser or by physicians who record their impressions; not observations made with the accuracy which science demands.

Therefore, even the best of this printed matter, of which we all receive so much, is not to be trusted. On the other hand, so many things of value first come to us in this way, that we cannot reject it all.

Often, unfortunately, rank nostrums, disguised as chemicals of definite composition, are described in print that is a perfect imitation of the best class of advertising matter which I have just described.

That we may not be duped, it is necessary to know by reputation the chemists who vouch for the character of the drugs, also the reputation of the pharmacologists and clinicians who test their action.

The remainder of nostrum literature consists of descriptions of the impressions of various physicians as to the therapeutic effects of mixtures, which any clever pharmacist could duplicate if given the op-

portunity. The nature of the remedy is hidden, as a rule, in the brief statement that it is an especially pure preparation of some well-known drug. Although many therapeutic virtues are claimed for it, it is often inert or so potent as to be dangerous, unless its nature is fully understood. Such mixtures never should be used. If all members of the medical profession would absolutely refuse to prescribe ready-made mixtures, either in liquid, pill or powder form, they would destroy one, if not the greatest, hindrance to successful and rational therapy.

In the first place, it is impossible properly to adapt the dose of drugs to individuals if one dose is given to all. Moreover, ready-made prescriptions lead to slovenly therapeutic reasoning and practice. For instance, a mixture of digitalis, strophanthus and nitroglycerin is often given when the effects of the latter are not wanted, though those of the former are, because the giver is accustomed to dispense the combination whenever a cardiac tonic is needed.

The prescription recently copied by THE JOURNAL of the American Medical Association¹ from the original column of another and advocated by its author as sovereign in pneumonia illustrates a common ignorance of the composition of widely advertised and used proprietaries, and an inclination to use them as though they were definite chemicals, not mixtures. The prescription to which I refer contains, first, a fair dose of acetanilid; second, sodium bicarbonate, and, third, bromo seltzer. The writer evidently did not know that the last also contained a fair dose of acetanilid, and that in his combination he was giving a large dose of this powerful drug. Many physicians use nostrum mixtures at first because the sample is at hand, and later because it is easily dispensed, and the practice becomes a habit.

We can not blame manufacturing chemists for finding new things or advertising them as cleverly as possible. That they and the nostrum vendor are surprisingly successful in selling their wares is largely our fault.

Proprietaries are used in enormous quantities. All medical men are, to a greater or less extent, employing them; and it is skillful advertising which has made this so.

Assuredly, it is legitimate practice to try a new drug or chemical which promises to be useful, for if we did not there would be no progress in therapeutics. Unfortunately, a prompt recapitulation of results is rarely made, and useless drugs are not discarded as they should be. However, sometimes this does happen, notably in the case of Bergeron's treatment of tuberculosis and later that of tuberculin and the x-ray. In a few months the whole medical world was apprised of the real value of these remedial agents.

We should see to it that all drugs are similarly weighed and labeled with their true value. Even our pharmacopeia contains inert and useless drugs retained because still prescribed, and for which, therefore, a standard must be established.

¹ Reprinted from the Journal A. M. A.

Medical men are too prone to accept new drugs as they accept new ideas, because they are new, without sufficiently testing them or demanding the approval of recognized authorities.

I make a conservative statement when I say that on the desks of each of us from three to ten advertisements such as I have described are placed daily, but the education of medical men in therapeutics by manufacturers does not stop here. Drummers are about as numerous as circulars, and each gives a brief, carefully prepared lecture on the wares which he carries. A lecture which is often interesting and if it told the whole truth would be instructive. Unfortunately, only that which will help to sell the goods is told. It is often surprising, too, how ignorant the detail man is when questioned as to his wares on other points than those in the lecture which he has committed to memory.

It is not surprising that medical men have surrendered to manufacturers and accept their teaching, since their goods are advertised in almost every medical journal and not infrequently well exploited in so-called original articles in these publications.

Manifestly, the condition in which we find ourselves must be changed. That this may be accomplished we must, first of all, recognize the disease, so to speak, of which we suffer. Second, we should insist that the teaching of pharmacology and therapeutics in medical schools be confined to the drugs of the pharmacopeia. Third, we should take more interest in the pharmacopeia and demand that it contain only drugs of genuine worth, and that it be revised often enough to insure the admission of all valuable new ones. Let the pharmacopeia be made a standard for both the medical and pharmaceutical professions.

Lastly, a greater amount of pharmacologic and therapeutic research should be stimulated. During the second and third quarters of the last century a very large amount of knowledge of this kind was accumulated by painstaking research; but in the last twenty-five or thirty years the attention of those medical men who have been contributing to our knowledge has been centered almost exclusively on etiology, bacteriology and pathology.

It is not surprising that in proportion as the most original minds among us neglect the field of pharmacology and therapeutics the manufacturer seizes this opportunity to instruct us. For he can do his teaching in his own way almost unchallenged by authorities.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

The next meeting of the Mississippi Valley Medical Association will be held at Hot Springs, Arkansas, November 6, 7, and 8, under the presidency of Dr. J. H. Carstens, of Detroit, Mich. The annual addresses will be delivered by Dr. Frank Parsons Norbury, Jacksonville, Ill., in Medicine and by Dr. Florus F. Lawrence, of Columbus, Ohio, in Surgery.

Dr. Norbury has chosen for the subject of his

address, "Clinical Psychology," and Dr. Lawrence will discuss in his address, "Surgical Principles and Theories." In addition to these addresses there will be the annual address of the President, Dr. Carstens.

A partial list of the papers promised is published herewith: Communications regarding papers should be addressed to the Secretary, Dr. Henry E. Tuley, 111 W. Kentucky Street, Louisville, Ky.

Elaborate arrangements have been made by the local profession of Hot Springs to entertain the visiting doctors and their wives, the meeting being held at one of the largest hotels, which will be specially opened in advance of the season to accommodate the Association. A cordial invitation is extended to every physician in the Valley to attend this meeting for which a large number of interesting and valuable papers have been promised.

SANTA CLARA COUNTY.

The meeting of the society held July 18, 1906, in the Auditorium of the Y. M. C. A. Building, San Jose, was one of the most successful ever known to our society. The following members were in attendance: Asay, Hervey, Fraser, Wm. Simpson, Harris, Park, Anderson, Trueman, McMahon, Goodrich, Jessie Simpson, Newell, Napp, Keith, A. S. J. Smith, Jayet, Cooper, Brown, Wagner, Beattie, Grissim, Burns, Whiffen, Cothran, Miller, Lyons, and Osborne.

The regular order of business was suspended for the purpose of at once proceeding to the special lecture of the evening which was delivered by Dr. Dudley Tait, of San Francisco: Subject, "Some New Problems in Lung Surgery." The lecture was illustrated and held the closest attention of the members throughout. At its conclusion Dr. Tait was warmly congratulated and the society tendered him a rising vote of thanks as a token of their appreciation of the evening's entertainment. Owing to the absence of Dr. Snow, of special committee on the subject, the discussion of the subject of reduction of fees for examination for Life Insurance Companies was ordered to be the special order of business for next regular monthly meeting. This meeting will be held on Wednesday evening, August 15th, 1906, at the St. James Hotel, San Jose, at the hour of 8 o'clock, sharp. In addition to the special order Dr. George Lee Eaton of San Francisco, will present an illustrated paper on "The Treatment of Pyelitis and Ureteritis by Urethral Catheterization and Lavage, and Microscopic Urinary Diagnosis."

Members of the council are requested to meet in session prior to the meeting for the consideration of important business. Councillors will please report to the President not later than 7:45 p. m.

ANTRIM EDGAR OSBORNE,
Secretary.

Please remember that the office of the State Society, and of the State Journal, and of the Secretary, Dr. Philip Mills Jones, is now located at

2210 Jackson Street,
San Francisco.

STANDING OF INSURANCE COMPANIES.

The following table has been compiled by the San Francisco "Examiner" and was published in its issue of August 27th. While it may not be absolutely correct, it probably gives a very good idea of the relative standing of the various insurance companies at the time of publication, and should be carefully studied by every physician who carries insurance upon his property:

Class A—The companies in this class are credited with fair and honorable settlements of their San Francisco losses.

Aetna of Hartford.
 Liverpool and London and Globe.
 California.
 Royal of Liverpool.
 Queen of America.
 Home of New York.
 Springfield.
 Connecticut.
 Continental.
 New Zealand.
 Scottish Union and National.
 Northern of London.
 Phoenix of London.
 Sun of London.
 New Hampshire.
 Hartford.
 Citizens.
 New York Underwriters.
 Atlas.
 North British and Mercantile.
 Law Union and Crown.
 Union of London.
 London Assurance.
 Pennsylvania.
 Insurance Company of North America.
 Alliance of Philadelphia.
 Niagara.
 Pelican.
 German-American.
 German Alliance.
 Glens Falls.
 Michigan.
 Teutonia.
 American Central.
 Mercantile.
 St. Paul.
 Agricultural.
 Phoenix of Hartford.
 Williamsburg City (on policies that do not contain the earthquake clause.)
 Class B—This is the list of the "barbers." Their settlements range from 57 cents on the dollar up:
 London and Lancashire.
 Orient.
 State of Liverpool.
 English-American Underwriters.
 Caledonian.
 Caledonian-American.
 Scotch Underwriters.
 Royal Exchange.
 American of New Jersey.
 Fire Association of Philadelphia.
 Philadelphia Underwriters.
 Phoenix of Brooklyn.
 Prussian-National.
 Delaware of Philadelphia.
 Rochester-German.
 National of Hartford.
 Providence-Washington.
 Western of Toronto.
 British-American.
 British-American of New York.
 Northwestern-National.
 Northwestern Fire and Marine.
 Austin of Texas.
 Eagle.

Assurance Company of America.
 Aachen and Munich.
 Hanover.
 Hamburg-Bremen.
 Svea.
 National Union of Pittsburg.
 Concordia.
 Franklin.
 Germania.
 Federal.
 Queen City.
 United Firemen's.
 Buffalo-German.
 Camden.
 Globe and Rutgers.
 Security of New Haven.
 Westchester.

Class C—The companies in this class offer settlements below 75 cents on the dollar:

New Brunswick, 70 cents.
 Girard, 70 cents.
 Milwaukee Mechanics, 70 cents.
 North River, 65 cents.
 German of Freeport, 60 cents.
 German-National, 60 cents.
 American of Philadelphia, 50 cents.
 German of Peoria, 50 cents.
 Nassau, 50 cents.
 American of Boston, 40 cents.
 New York of N. Y., 33 1-3 cents.
 Dutchess, 30 cents.

Class D—Companies on the waiting list. These include (a) those that while denying liability are considering loss-claims with a view to compromise settlement, (b) those that refuse to recognize liability and will not pay one cent, (c) those that have postponed settlement pending financial negotiations.

(a)
 Commercial Union of London.
 Commercial Union of New York.
 Alliance of London.
 Palatine.
 Indemnity.

(b)
 Rhine & Moselle,
 Transatlantic.
 Austrian-Phoenix.
 North German of Hamburg.
 North German of New York.
 Williamsburgh City (on earthquake policies).

(c)
 Calumet.
 Fireman's Fund.
 Home, Fire & Marine.
 Pacific Underwriters.
 Equitable.

Companies in the hands of a receiver:
 Traders.
 Security of Baltimore.

CALIFORNIA PUBLIC HEALTH ASSOCIATION.

The next meeting of this association, which, as our readers doubtless know, includes all members of various boards of health and all health officers in the state, will be held at Alum Rock on October 12th. The members will gather in San Jose and go to Alum Rock sometime in the morning in a special car placed at their service by the railway company. The subject for discussion is a particularly fitting one, Mineral Springs of California; and after a luncheon at Alum Rock Springs, this subject will be discussed. It is hoped to make this meeting a particularly pleasurable one, as it will be somewhat in the nature of a picnic.

INSURANCE FEES FROM THE POLICY HOLDERS' STANDPOINT

Mr. Chas. A. Peabody, Pres.
Mutual Life Insurance Co. of New York,
New York, N. Y.

Dear Sir:

Your communication of July 2d received with pleasure. The various changes, looking to improvement and economy in the direction and management of the company, are indeed very pleasing from the standpoint of the policy-holder. I wish, however, to call your attention to one conspicuous blunder that has occurred, with which I am familiar. Either through your permission or direction, the medical directors have, under the guise of economy, reduced the fee for medical examinations from an already small sum (\$5.00) to \$3.00, thus striking a serious blow at the foundation and stability of the company. Mind you, I am now speaking as a policy-holder and not as a medical examiner, for I have already served notice that I would not examine for \$3.00. You have tried to place one of the greatest professions on the level of the dime counter of a bargain store.

Of course, you will still be able to get your examinations made—that probably would be the case if the fee were made \$1.00 instead of \$3.00,—but I insist you will get the labor of a poorly-paid employee. You know what that means. You will get just \$3.00 worth and no more; you will not get the best there is in the profession.

You know also, that the doctors form no inconsiderable number of your policy-holders. Your agents have always tried to insure the doctors first, and I believe the physician has, as a rule, freely insured.

I have, at four different times, taken a policy with the "Mutual," because I believed it a good thing to do, and also because the agent was always on hand to urge the wisdom of the move.

Now you can rest assured that the physician is about like other people—he is going to trade with those who give him the best return for his services. Also, he will always be under the firm conviction that the life insurance company that pays the highest medical fee (at least that pays a reasonable fee) is the safest company.

I am, my dear sir, sincerely yours,

A. S. P.

GERMAN HOSPITAL.

To the Editor of the State Journal: In the June issue of the Journal, at page 157, there appears an attack upon the German Benevolent Society of San Francisco, which I trust you will permit me most emphatically to resent.

You say: "The information reaches us directly, but not officially, and there may be some error." There is "some error," and I desire to call it to your attention, though you could have obtained the exact truth by going to headquarters. Apparently you have been lead into mixing up two items of news. An attempt was made by the Directors of the German Benevolent Society, when they were dazed by the late catastrophe, to cut down expenses in every way, as a wise economy. They decided to cut down the salaries of the visiting physicians to half the customary amount, but upon protest from the staff, this ill-advised measure was abandoned. It was finally agreed that after August 1, 1906, no salaries should be paid, but that "hospital patients" should be classed as though they were the private patients of the respective member of the staff, and should pay him as would any of his own private patients. By "hospital patients" I mean such persons not members of the German Benevolent Society as come voluntarily to the hospital seeking medical or surgical care, and are without their own physician or

surgeon. Previously, such patients' fees were paid to the hospital; now they are paid to the staff and the result is entirely satisfactory.

You say, furthermore, of the German Benevolent Society, "one of the richest and therefore most dangerous contract organizations on the Pacific Coast." You are laboring under the same misconception in this respect, as so many do, inside and outside of the profession. The German Benevolent Society is not a rich concern by any means; all that it has is the land and the hospital thereon. This land is not income-producing; the hospital is maintained for the benefit of the members, and no surplus income accrues to the Society from the hospital; money derived from the payments of members goes either to the hospital, or is used to assist needy Germans in buying bread and clothes, paying rent, transportation, etc. When the hospital became obsolete and a new and modern edifice was a necessity, money donated by bequests to the Society (small sums only, notwithstanding the large number of wealthy Germans in San Francisco) was put aside and thus a little more than \$100,000 was accumulated as a building fund. Additional money was raised through a mortgage on the land, and building commenced. When the hospital is finished, the German General Benevolent Society will be in debt—far from being "one of the richest organizations."

It will be of distinct advantage to yourself and to your readers to know just a little something definite about this truly great benevolent organization, the German General Benevolent Society of San Francisco. It was started by broadminded generous German pioneers in early days for the assistance of needy emigrants from the Fatherland, and soon a hospital was added for those who needed medical assistance as well. For decades this Society has done noble work in carrying through sickness many a poor person and by tiding over many a family, which otherwise would have become a public burden!

At first the contributors did not ask for any return for their money; they paid to help others. But gradually the broad spirit of the pioneer waned, the people became more egoistic, more commercial, and many took advantage of the hospital and attendance, who certainly should not have done so. At the same time, people with small earnings were urged to join the society that in case of need they would have a place where they could find medical assistance without being compelled to ask for charity.

Later on, some smart directors wishing to increase the income of the Society devised the plan of taking into the folds of the Society others than Germans, as so-called subscribers; besides, the status of the paying patient (non-member) was changed. Formerly, the attending staff member received pay from these for services rendered, but with the change mentioned this practice was abolished, the physicians were paid a fixed salary, and the patients were charged only a maintenance fee, which included everything! This was avowedly done for the purpose of inducing patients to enter the hospital.

During the entire time of my connection with the hospital, there has been an incessant struggle between the directors and the visiting physicians. It has been our endeavor to make the "hospital patients," i. e., those who are neither members of the Society nor our own private patients, pay for physicians' attendance. At last this object has been secured, and "hospital patients" will be treated as private patients of the visiting staff. That is, they will pay the hospital for maintenance only, according to accommodations, but as far as a fee for medical, surgical, etc., attendance is concerned, "hospital patients" will have to make their own terms with their respective physicians.

This arrangement eliminates the objection, hitherto made, of unfair competition on the part of the German Hospital. Furthermore, it secures to the

visiting staff just compensation for the services which they render to the members of the Society, for it brings to them many patients which they otherwise would not have ("hospital patients").

There still remains the objection against "contract practice." Sure enough! This matter was threshed out a few years ago, and if my memory serves, we all agreed at that time that it was physically impossible to abolish all forms of contract practice; the best that we may hope to do is to curb it within just limitations.

This is exactly what we of the German Hospital staff are trying to do. We hope and believe that the next move will be to drop all "subscribers," and then to have the privilege of free attention at the hospital limited to deserving members. A fee should be permitted even if the patient is a member, if his circumstances are such that he can afford it, and especially if he is able to pay for a private room. In other words, we want to go back to the plans of the early days, before the time when abuses crept in. The assistance of our medical brethren will be most welcome, and we believe that with such aid, the necessary changes can be made that will put the new German Hospital in the front rank of hospitals in the Western Hemisphere, and place it on a footing that will be absolutely unobjectionable in any way.

Very truly yours,
H. KRÉUTZMANN, M. D.

PUBLICATIONS.

The following publications have been received by the Journal, some of them having been sent in for review and others for the library. Our thanks are extended to the publishers, and we beg to advise them that many of the works are now in the hands of reviewers and that the result of their efforts will be published as soon as possible.

Eczema. By Samuel Horton Brown, M. D. P. Blakiston's Sons & Co., Philadelphia.

Diseases of the Nervous System Resulting from Accident and Injury. By Pearce Bailey, A. M., M. D. D. Appleton & Co., N. Y.

Infection, Immunity and Serum Therapy. By H. T. Ricketts, M. D. The American Medical Association Press.

The Operating Room and the Patient. By Russell S. Fowler, M. D. W. B. Saunders Co., Philadelphia.

Consumption and Civilization. By John B. Huber, M. D. The J. B. Lippincott Co., Philadelphia.

The Practice of Pediatrics in Original Contributions to American and English Authors. Edited by Walter Lester Carr, A. M., M. D. Lea Brothers & Co., Philadelphia and New York.

A Compend of Operative Gynecology. By William Seaman Bainbridge, M. D., and Haven D. Meeker. The Grafton Press, N. Y.

The Diagnosis of Living Matter. By Jacques Loeb. Columbia University Press, N. Y.

Golden Rules of Surgery. By Augustus Charles Bernays, M. D. C. V. Mosby Medical Book Co., St. Louis.

Text Book of Diseases of Women. Penrose. W. B. Saunders Co., Phila.

Clinical Diagnosis. Ernest Boston. W. B. Saunders Co., Phila.

Practical Surgery. Nicholas Senn. W. B. Saunders Co., Phila.

The Treatment of Fractures. Scudder. W. B. Saunders Co., Phila.

Text Book of Obstetrics. Webster. W. B. Saunders Co., Phila.

Practice of Medicine. Eichhorst. W. B. Saunders Co., Phila.

Nervous and Mental Diseases. Church and Peterson. W. B. Saunders Co., Phila.

A Non-Surgical Treatise on Diseases of the Prostate Gland and Adnexa. By George Whitfield Overall. The Rowe Publishing Co.

Clinical Bacteriology and Hematology for Practitioners. By W. D'Este Emery, M. D. P. Blakiston's Son & Co., Philadelphia.

The Prophylaxis and Treatment of Internal Diseases. By F. Forchheimer, M. D. D. Appleton & Co., New York.

The Eye and Nervous System. By Wm. Campbell Posey, A. B., M. D., and Wm. G. Spiller, M. D. J. B. Lippincott Co., Philadelphia.

The Autotoxicoes Their Theory, Pathology and Treatment. By Heinrich Stern, Ph. M., M. D., New York, Professor of special medical pathology and therapy in the College of Physicians and Surgeons, Boston; director of the Institute for Medical Diagnosis and Research in the city of New York, physician-in-chief, Philanthropin Hospital in the city of New York; pediatricist and pathologist Misericordia hospital and the Hartsdale Infirmary; consulting physician Metropolitan and Red Cross Hospitals; chairman section on pharmacology American Medical Association; permanent member Medical Society state of New York; Fellow of the New York Academy of Medicine, etc., etc., 12mo. 222 pages. Price \$1.00, postpaid. Chicago: G. P. Engelhard & Company, 1906.

This little work is certainly the clearest and most scientific presentation of the subject which has yet come to hand. The author has not only given his own observations, experiments and conclusions, but has worked over a mass of literature on the subject. The conciseness and simplicity of the text recommend it to the busy practitioner. Complicated chemical formulae are conspicuous by their absence but the source and end products of the toxins have been indicated in a general way. Physical and electrical as well as the chemical causes of the clinical phenomena, the results of the toxicoses, are discussed. Not least in importance is the part devoted to the practical application of the principles of the "toxicoses" and their treatment. The book is certainly of great value to both practitioner and student.

J. B. F.

Nursing in the Acute Infectious Fevers. By George P. Paul, M. D., Assistant Visiting Physician and Adjunct Radiographer to the Samaritan Hospital at Troy, New York.

Cloth: Pp. 200. Price \$1.00 net. Philadelphia: W. B. Saunders & Co., 1906.

We can only regret the fact that so much medicine and so little nursing is included in this epitome of the "Acute Infectious Fevers." Many subjects of great practical importance to nurse and physician have not received the attention they deserved; among others, Isolation, Disinfection, Fumigation, have all been treated too briefly and it is in just such a work that they might be elaborated with advantage. As a rule, text-books for nurses err in the other direction. Let us hope that the second edition will not be amenable to the same criticism.

J. B. F.

SAN JOAQUIN VALLEY MEDICAL ASSOCIATION.

The next semi-annual meeting of this thriving association will be held in Fresno on the second Tuesday in October. The President is Dr. Geo. H. Aiken of Fresno, and we understand that an excellent program is being prepared.